

# The LPTV Report

News and Strategies for Community Television Broadcasting

Vol. 3 Issue 10

A Kompas/Biel Publication

November 1988

## LPTV Industry Shows Off In Vegas



## Participants Call CBA Convention An Outstanding Success

—by Jacquelyn Biel

More than 300 LPTV operators, applicants, construction permit holders, and interested industry bystanders crowded exhibitors' booths and listened eagerly to presentations on everything from building and operating an LPTV station to dealing with government regulators at the first annual Community Broadcasters Association Conference and Exhibition October

25-29 at Caesar's Palace in Las Vegas. For many of the attendees, the event marked the coming of age of an industry that has been stubbornly developing into a viable broadcast alternative despite the obstacles that have frustrated its early years.

Comments on the floor indicated that the convention was a brisk selling event for the 25 exhibitors who offered a range of equipment and services to eager buyers. According to Eddie Barker of the

Dallas-based convention management firm Eddie Barker Associates—who engineered the show from the beginning—all of the exhibitors will be returning for the second annual event in 1990.

After an opening cocktail reception in the exhibit hall Tuesday evening, during which the first CBA "Best Local Production" Awards were presented (see related story in this issue), the convention began

*continued on page 8*

## Six Win CBA "Best Local Production" Awards

LPTV stations from across the country proved that creativity and flair are not the exclusive property of high power and big money, as they turned out their best for the Community Broadcasters Association's "Best Local Production" Competition last month. From the more than thirty

entries, judges chose eleven winners in four categories—news, promotion, program, and commercial. The presentations were made during the cocktail reception opening the CBA Convention and Exhibition in Las Vegas.

W04BP, Campbellsville, KY won the

only news award for its evening newscast, "News-Line 4," as well as a commercial award for "Mission Impossible," a spot for Campbellsville's Gateway Foods.

W08BV in Columbus, OH won two promotion awards—for a program promo-

*continued on page 6*

**When you go into  
low power television...  
go in strong  
with TTC transmitters.**

Television Technology Corporation offers  
a full line of outstanding low power television  
transmitter/translators.

**The quality is TTC.**  
TELEVISION TECHNOLOGY CORPORATION

[See the TTC ad on page 13 for details]

BULK RATE  
U.S. POSTAGE  
PAID  
Permit No. 16  
New Richmond, WI  
54017

ADDRESS CORRECTION REQUESTED

LPTV Report  
P.O. Box 25510  
Milwaukee, Wisconsin 53225-0510

# HIGH POWER SOURCES for LPTV

(LOW POWER TELEVISION)

**10. UTAH**

**Visual Technology, Inc.**  
2141 S. Main Street  
Salt Lake City, UT 84115  
(801) 466-7481

**7. MINNESOTA, IOWA**

**Vaughn Communications, Inc.**  
7951 Computer Avenue South  
Minneapolis, MN 55435  
(612) 831-2248

**5. WISCONSIN, N. ILLINOIS**

**Video Images, Inc.**  
285 N. Janacek Road  
Waukesha, WI 53186-1924  
(414) 785-8998

**2. MICHIGAN, N.W. OHIO**

**General Television Network**  
Communications Systems Group  
13201 Capital Avenue  
Oak Park, MI 48237  
(313) 399-2000

**9. COLORADO**

**CEAVCO Audio-Visual Co., Inc.**  
1650 Webster Street  
Denver, CO 80215  
(303) 238-6493

2137 South Stoughton Road  
Madison, WI 53716  
(608) 221-8888

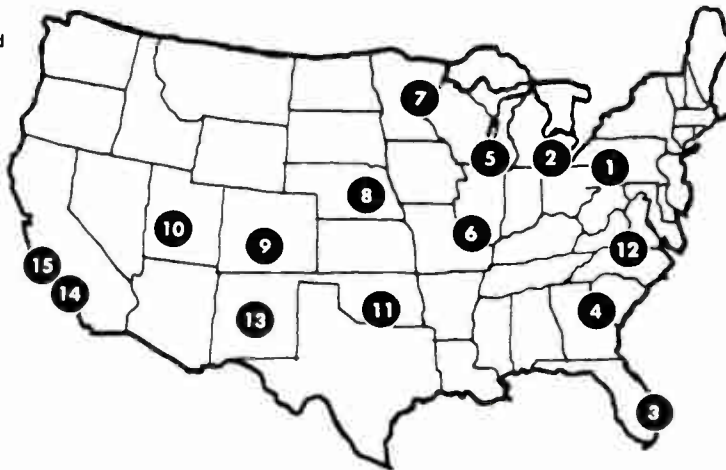
1121 Tower Lane  
Bensenville, IL 60106  
(312) 766-1100

**1. PENNSYLVANIA**

**Alpha Video Electronics, Co.**  
200 Keystone Drive  
Carnegie, PA 15106  
(412) 923-2070

**8. NEBRASKA**

**Audio Visual, Incorporated**  
8025 Maple Street  
Omaha, NE 68134  
(402) 393-9911



**14. CALIFORNIA**

**A-VIDD Electronics Co.**  
3920 Gilman Street  
Long Beach, CA 90815  
(213) 498-7776

**12. NORTH CAROLINA**

**Clark-Powell & Associates, Inc.**  
110 Regent Drive  
P.O. Box 25146  
Winston-Salem, NC 27114  
(919) 760-4932  
NC Wats 800 533-1099

**15. CALIFORNIA**

**Televideo San Diego**  
4783 Ruffner  
San Diego, CA 92111  
(404) 455-7610  
1 800 554-5440

801 Clanton Road  
Suite 101  
Charlotte, NC 28217  
(704) 525-4223

**13. NEW MEXICO**

**KLR**  
129 Madiera S.E.  
Albuquerque, NM 87108  
(505) 265-3562

**11. OKLAHOMA**

**Fairview-AFX, Inc.**  
4932 S. 83rd East Avenue  
Tulsa, OK 74145  
(918) 644-8020

**6. MISSOURI, S. ILLINOIS**

**VMI Company of St. Louis**  
2368 Schuetz Road  
St. Louis, MO 63146  
(314) 569-1334

**4. GEORGIA, S. CAROLINA**

**Technical Industries of Georgia**  
6000 Peachtree Road, N.E.  
Atlanta, GA 30341  
(404) 455-7610  
GA Wats 800 554-5440

3162 N. Portland  
Oklahoma City, OK 73112  
(405) 947-6711

**3. FLORIDA**

**Professional Communications Systems, Inc.**  
5426 Beaumont Center Blvd.  
Suite 350  
Tampa, FL 33614  
(813) 888-5353

## PSNI

(PROFESSIONAL SYSTEMS  
NETWORK INC.)

PSNI professional video systems dealers are dedicated to maintaining a tradition of full customer service, including an objective appraisal of the customer's video needs; advice from trained, experienced professional sales people; knowledge of how your system works and performs; and realistic and reliable support of your LPTV system.

Whatever your LPTV needs, you can be assured of prompt, knowledgeable response to your questions from your nearest Professional Systems Network Inc. member.

# Our Readers' Comments

Capitol's management couldn't be more enthused about the reception afforded the company at the recently concluded LPTV Conference in Las Vegas. Our heartiest congratulations to John Kompas, Jackie Biel, Lori Wucherer, Eddie Barker, Suzi Oliver, and their respective staffs for a well-orchestrated, informative, and professional first convention.

The response to our satellite-delivered national programming service by LPTV station owners and CP holders was overwhelming. Our goal to provide first-run original programming combined with motion pictures at an affordable price was met time after time with the response, "Capitol is exactly what the LPTV industry needs."

Capitol Television Network is a broadcast network founded specifically for the independent broadcaster, not cable. Our goal is to make an impact on the broadcasting landscape by providing independent and LPTV broadcast stations with quality, alternative programming that will make cable operators far more receptive to giving the stations carriage. Cable looks upon LPTV stations in particular as competition. We hope to provide the kind of programming that will make a cable operator look at LPTV stations as valuable additions to the system.

**Jon Elliott**  
President and CEO  
Capitol Television Network

M/B

## FCC To Return Some LPTV Filing Fees

Under a modification of its fee program, the FCC recently announced that it will begin returning filing fees paid by successful LPTV applicants proposing a non-commercial educational LPTV service.

LPTV applicants whose applications are returned for defects or for untimely filing and applicants whose applications are dismissed after a lottery will not receive refunds, however.

M/B

**BON MOT**

It has long been an axiom of mine that the little things are infinitely the most important.

Sherlock Holmes



## CBA Comment

—by John Kompas

"Tremendous!" "Fantastic!" "Magnificent!"

We heard these words often, and others like them, on the exhibit floor and in the seminars at the First Annual CBA Conference and Exhibition at Caesar's Palace in Las Vegas last month. Considering that this was our first effort at convention planning, I was amazed at how smoothly everything fell into place. We all can be very, very proud of our success.

But it didn't happen by chance. Four vital groups of people who care deeply about our industry made it happen.

First are the professionals at Caesar's Palace: Don Ross, Joanne Greinert, and all of the convention facilities staff. Then there is Eddie Barker, Suzi Oliver, and the people at Eddie Barker Associates, who conducted our membership drive, recruited exhibitors, and made sure everything ran smoothly during the four days. Third, there are the exhibitors and sponsors who rolled the dice with us hoping that our industry was ready. I am very pleased to tell you that every one of them plans to exhibit again at our 1989 convention. Finally, there is Lori Wucherer, CBA administrative director, who did an outstanding job of coordinating the thousands of details and promoting the event.

Most importantly, I want to thank all of the LPTV station operators, applicants, and CP holders who participated so enthusiastically in everything we'd planned. You made the whole meeting real.

One person who was not able to attend, but to whom the CBA owes deep gratitude, is Bob Bernstein. Bob, who heads the New York City public relations firm, March Five, Inc., has supported us since our beginnings with his time, his enthusiasm, his considerable talent, and his reputation. It is largely because of Bob's efforts that the CBA and the LPTV industry have received the attention from the trade press that they have enjoyed over the past few years. It is also because of him that we have made some valuable and loyal friends. Thank you, Bob. We missed you.

We have begun a tradition. As we come together to share experiences and learn from each other's trials and successes, we create the energy that drives this industry. Community broadcasting is the true fruition of broadcast television. It is our service to our communities that will make us grow and our sharing together that will make us strong.

M/B

*John Kompas is the current president of the Community Broadcasters Association.*

### Kompas/Biel & Associates, Inc.

S.E. Bradt, *Chairman of the Board*  
John Kompas, *President and Chief Executive Officer*  
Jacquelyn Biel, *Executive Vice President and Secretary*  
Richard P. Wiederhold, *Vice President—Finance and Treasurer*

### The LPTV Report

5235 North 124th St., Suite 22  
Butler, WI 53007  
(414) 781-0188

John Kompas, *Publisher*  
Jacquelyn Biel, *Editor*  
Scott R. Swartwout, *Advertising Account Executive*  
Shelley Gall, *Executive Assistant*  
Barbara Barr, *Administrative Assistant*  
Heather Kompas  
*Columnists:* John H. Battison, P.E., Peter Tannenwald

*Guest Contributor:* Michael J. Havice, Ed.D

*Advertising Sales:*

**Kompas/Biel & Associates, Inc.**  
P.O. Box 25510  
Milwaukee, WI 53225-0510  
(414) 781-0188

**Affiliations:** CBA *The LPTV Report* is the official information channel of the Community Broadcasters Association.

*The LPTV Report*, ISSN 0892-5585, is published monthly by Kompas/Biel & Associates, Inc., 5235 124th Street, Suite 22, Butler, WI 53007, or P.O. Box 25510, Milwaukee, WI 53225-0510. Copyright 1988 by Kompas/Biel & Associates, Inc. All rights reserved.

Subscription price: 1 year, \$25.00; 2 years, \$45.00. Outside USA: 1 year, \$31.00; 2 years, \$57.00. POSTMASTER: Please send address changes to: *The LPTV Report*, P.O. Box 25510, Milwaukee, WI 53225-0510.

# How Good is Our 3rd Generation?



TBC-200 Time Base Corrector



IFP-44 Editing Interface



UTP-1 Signal Transcoder



AG-7500A Editing VCR



AG-7400 Portable VCR



AG-A750 Editing Controller



CCD Cameras



SVHS Video Cassettes

WorldRadioHistory  
Circle (45) on ACTION CARD

# Take a Look at Our 5th!

## PERFORMANCE DATA (AG-7500A)

	1st Generation	3rd Generation		5th Generation
		w/o TBC	w/TBC-200	w/TBC-200
Horizontal Resolution (Color Mode)	400	370	360	350
S/N Ratio (dB)				
Luminance (Color Mode)	57.2	51.7	52.0	49.0
Chrominance (AM)	51.8	47.5	51.4	44.5
Chrominance (PM)	44.3	40.1	43.8	35.2

Data represents measurements by independent engineering evaluation. VCRs taken at random from inventory.

• Signal Source:	Shibasoku TG-7/1	• Noise Meter:	Rohde & Schwarz UPSF2/UPSF2E2
Luminance:	50 IRE flat field w/burst	Y-S/N:	200 kHz HPF, subcarrier trap on
Chroma:	50 IRE w/100 IRE p-p	C-S/N:	4.2 MHz, LPF, weighted
Resolution:	Monoscope Shibasoku 58A/1		100 Hz HPF
			500 kHz LPF unweighted

From the first to the third, even to the 5th generation Panasonic SVHS Pro Series specifications speak for themselves. And they say "outstanding." Here are some of the reasons:

**The AG-7500A editing VCR** with its new laminated amorphous heads produces superb quality generation after generation.

**The AG-A750 editing controller** has everything you need for highly accurate single event editing.

**And the AG-7400 portable 2-hour VCR** is a natural performer in the field.

**Our TBC-200 time base corrector** has a 16-line

correction window, chroma plus/enhancement, chroma noise reduction and no-roll circuitry. To make multi-generation recordings even better.

**The UTP-1 signal transcoder** is more than ready to transcode virtually any component signal into any other component signal. Saving you an extra generation.

**The IFP-44 editing interface** controls Pro Series decks on both the source and edit side. To easily integrate into selected 3/4" systems.

**Our CCD Cameras** are equally spectacular. And with the Panasonic SVHS Pro Series you not only get outstanding

performance, you also get the added economy of 2-hour operation in the field and in the studio.

The Panasonic SVHS Pro Series. In a word it's outstanding.

For more information on the Panasonic Pro Series, call Panasonic Industrial Company at 1-800-553-7222, or your local Panasonic Professional/Industrial Video dealer.



**Panasonic**  
Professional/Industrial Video

# YES!

## BURT SHERWOOD



Handles  
**LPTV Stations**  
coast-to-coast.  
Here are over 60  
current listings for sale.

- ALABAMA** Mobile  
Tuscaloosa  
Huntsville
- ARIZONA** Montgomery  
Flagstaff  
Parker  
Phoenix  
Prescott  
Batesville-Paragould
- ARKANSAS** Little Rock—2
- CALIFORNIA** Fresno—2  
Chico  
Kerrville  
Eureka  
Oroville
- FLORIDA** Vero Beach  
Chipley-Graceville  
Fort Myers  
Jacksonville  
Tallahassee  
Naples  
Lakeland  
Orlando  
Live Oak  
Ingliss-Yankeetown  
Perry  
Fort Pierce
- GEORGIA** Albany  
Savannah  
Tifton
- HAWAII** Hilo  
Honolulu
- IDAHO** Twin Falls
- ILLINOIS** West Chicago  
Peoria  
Streator
- INDIANA** Rensselaer
- LOUISIANA** Baton Rouge  
New Orleans  
Haughton (Shreveport)
- MISSOURI** Lebanon
- NEBRASKA** Lincoln  
Malcolm
- NEW MEXICO** Farmington
- NEW YORK** New York
- NORTH CAROLINA** Winston-Salem
- OHIO** Cleveland
- OREGON** Corvallis
- PENNSYLVANIA** Pittsburgh
- TENNESSEE** Nashville—2  
Knoxville
- TEXAS** Bryan  
Pecos  
Midland  
Houston  
Houston (Pasadena)  
Kerrville  
San Antonio
- UTAH** Salt Lake City

**312-272-4970**



3125 Maple Leaf Drive Glenview, IL 60025

Circle (5) on ACTION CARD



Convention attendees watch the award-winning entries of the CBA "Best Local Production" Competition at the opening reception Tuesday evening.


## CBA Awards

continued from front page

tion and a general station image spot—and a commercial award for a spot for a local florist. KLSR-TV (K25AS) in Eugene, OR, was honored in the commercial category. And three awards went to WKG-TV (W19KG) in Baton Rouge, LA—one for its promo spot announcing a channel change, as well as one each in the commercial and program categories.

Channel America and Video Jukebox Network, both program networks with several owned and operated LPTV sta-

tions, also won in the program category. Channel America entered a half-hour behind-the-scenes look at the world of fashion designer Kenzo. An entertaining explanation of the video jukebox concept won for the Video Jukebox Network.

Judging was based on creativity, production quality, and achievement of objectives. The judges were Betty Hertz, program director for Fox affiliate WCGV, Milwaukee; Neil Jaehnert, vice president, Midland Video Productions, a Milwaukee production company; and Lori Wucherer, former director of programming and promotion, WTV, Milwaukee, and currently administrative director of the CBA. 



Jim Jackson, general manager of W04BP, Campbellsville, KY, and producer/director Janet Graham accept the CBA "Best Local Production" Award for their local spot, "Mission Impossible."



Tammy Trahan of WKG-TV, Baton Rouge accepts the CBA "Best Local Production" Award for her station's promotion announcing a channel change.



Bob Lyons, general manager of W08BV in Columbus, OH, accepts a "Best Local Production" Award from John Kompas for a retail store commercial.



A "Best Local Production" Award went to David Post for Channel America's original program on the fashion designer, Kenzo.

# FCC Upholds LPTV Processing Procedures Against Bahia Honda, WPIX Petitions

The Federal Communications Commission has denied two petitions for reconsideration of its recently adopted LPTV application processing procedures. The new procedures were designed to limit the number of applications filed in LPTV filing windows and to provide relief to stations displaced by conflicting primary services, either high power TV or land mobile radio (LPTV Report, March 1987).

In a petition filed in early 1987 (LPTV Report, May 1987), Bahia Honda, Inc. had argued that a displaced station seeking a new channel should be awarded that channel over all other applicants for the same channel and should not be subject to a lottery. It said that because displaced licensees are experienced providers of service to the public, they deserve priority over applicants who can be presumed to have had no experience in operating a broadcast station. It also said that using a lottery to decide between an existing licensee and a new applicant creates an uncertainty that discourages investment in LPTV. If a new channel could not be awarded without subjecting the displaced licensee to a lottery, then, Bahia Honda argued, the Commission should conduct comparative hearings in which the displaced station is awarded a preference akin to the renewal expectancy of an operating high power licensee.

The Community Broadcasters Association filed comments in partial support of Bahia Honda's petition (LPTV Report, June 1987).


In a separate petition, WPIX and the Association of Independent Television Stations, Inc. offered a solution to the problem faced by displaced stations in a populous area where all vacant channels are already applied for. Where there are two vacant channels for which applications are pending, WPIX suggested that one be allotted to the displaced licensee while the other applicants compete by lottery for the second vacant channel.

Where there are several displaced licensees competing for one or few available channels, WPIX suggested that the licensee with the longest record of service to the community be given a priority. Where there is only one unused channel and several displaced competitors, WPIX suggested that the licensees compete by lottery for the channel without subjecting the process to competing applications from additional filing windows.

The Commission denied both petitions, saying that since 1970 the operators of secondary services have known that the risk for displacement accompanies their

licenses. It also stated that granting processing priorities to displaced licensees would disturb existing procedures, would be "manifestly unfair" to existing applicants, and would not necessarily result in more LPTV service to the public.

In amplification, the Commission pointed out that WPIX's proposal would not only be unfair to existing applicants by requiring them to re-engineer their applications, but would also create new daisy chains and subject them to further competition when, in fact, a cut-off date

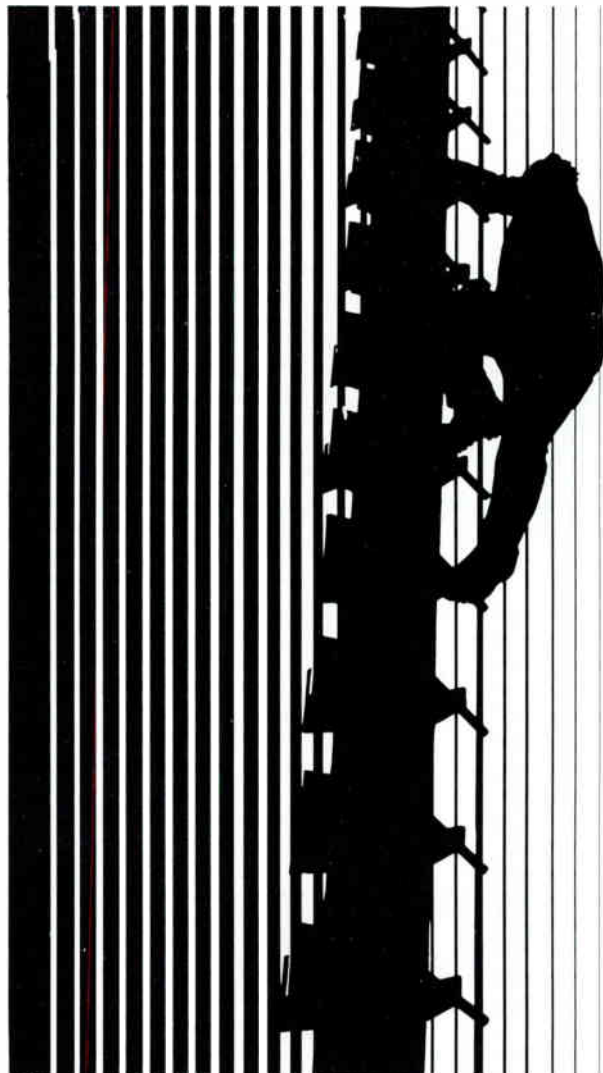
may have passed. Similarly, applying the comparative hearing process to LPTV would create a "myriad difficulties" and "considerable confusion," resulting in delay in implementing the LPTV service. 

**BON MOT**

**Problems are only opportunities in work clothes.**

*Henry J. Kaiser*

## Bogner—20 years, over 1000 TV transmitting antennas and still climbing!



In the twenty years since we innovated a remarkable slot array design we have succeeded to a leadership role in TV broadcast antennas. We had to be better than the competition. We still are.

Today there are over 1000 Bogner TV transmitting antennas in use, more than from any other single manufacturer. Antennas with a long history of trouble-free performance and unequalled coverage.

Bogner antennas come in every power range and with the largest number of standard patterns in the industry. In addition, Bogner offers hundreds of custom patterns plus special designs to meet particular requirements.

Find out more. Call or write: Bogner Broadcast Equipment Corp., 603 Cantigue Rock Road, Westbury, New York 11590, (516) 997-7800.

When you need us  
we'll be there.

**BOGNER**  
WE MAKE THEM SMARTER

Circle (23) on ACTION CARD

## CBA Convention

continued from front page

in earnest Wednesday with concurrent morning and afternoon workshops. The exhibit hall was open each day between sessions.

### **Audience Research and Local Programming Win Viewer Loyalty**

Today's viewers are apathetic about television because of the wild proliferation recently of stations and programs, said Dick Block, programming consultant

to the National Association of Television Program Executives and moderator of a panel entitled "Programming: From Purchase to Placement." The solution to the problem of the apathetic viewer, he said, is solid audience research—a view shared by the other panelists: Edward Branca, station manager of KADY-TV, Ventura, CA; Carole Cartwright, director of programming and program operations, KNBC-TV, Burbank, CA; Neil Derrough, president and general manager, KNSD-TV, San Diego, CA; and Charles Larsen, president-domestic television distribution, Republic Pictures.

The Wednesday morning panelists also agreed that local programming is the most successful in attracting audiences. According to Branca, "Your programming is really your license to do business." Cartwright's NBC affiliate buys no entertainment programming; instead, programming funds are devoted to producing local news and specials. Derrough concurred: "Produce as much programming as possible," he advised, reminding the audience that local productions need not be fancy or expensive to be effective. "You can do outrageous things in LPTV," he said, "because of the lack of regulation. It's the most exciting part of the television industry right now, because of its flexibility."

Charles Larsen brought the program supplier's viewpoint to the panel. His solution to the problems LPTV stations are facing in buying programming is to buy in non-traditional ways. If LPTV stations bought in the summer months, for example, after most fall season contracts have been signed, syndicators would be able to offer them the programming that had not been sold.

### **Quality Is Crucial In Equipment**

Equipping the LPTV station was the subject of a concurrent morning panel featuring Richard Bogner of Bogner Broadcast Equipment, Herman Schkolnick of Panasonic, and consulting engineer John H. Battison. The session was moderated by LPTV station applicant Charles Holcomb.

Don't be satisfied with a poor antenna signal, emphasized Bogner, who gave the audience several ways to improve a signal, among them, locating close to the service area, using low-loss transmission line, using a high gain antenna with heavy tilt and null fill, minimizing wind load, and transmitting from the maximum height possible.

Schkolnick advised broadcasters to shop wisely for studio equipment. Cameras should be solid-state systems; VTR's should be adaptable to a one-person ENG operation and should be capable of handling a variety of tape formats. The cost of operation should also be a factor in the equipment decision, said Schkolnick.

Proper care of the transmitter is crucial, emphasized John Battison in his remarks. With good maintenance, a transmitter should last for upwards of 20 years, so it should be easy to service. The transmitter environment is also important: the temperature should be stable and the air should be filtered to minimize the dust that can carbonize and cause an equipment failure.

### **Getting Cable Carriage Takes Persistence, Cooperation, Say LPTV Operators**

Three LPTV broadcasters offered some down-to-earth suggestions on how to get

# Microwave That Goes The Distance



No matter what distance your STL must cover, M/A-COM builds a system to fit your needs. From 2 GHz to 23 GHz, we offer products in all broadcast frequencies.

But we deliver more than just

hardware—we offer an entire range of support services. Our systems engineers help you plan the best—and most economical—system for you. We help you with installation. And after the sale we back you up with technical support—24 hours a day, 7 days a week.

With 20 years of experience and thousands of radios in the field, M/A-COM is the recognized leader in microwave systems for broadcasters. For more information, contact M/A-COM MAC, Inc., 5 Omni Way, Suite L, Chelmsford, MA 01824. (617) 272-3100. FAX: (508) 250-9522.



Circle (134) on ACTION CARD





NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**  
FIRST CLASS MAIL PERMIT NO. 11011 MILWAUKEE, WI

POSTAGE WILL BE PAID BY ADDRESSEE

# *The LPTV Report*

P.O. BOX 25510  
MILWAUKEE, WI 53225-9990



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**  
FIRST CLASS MAIL PERMIT NO. 11011 MILWAUKEE, WI

POSTAGE WILL BE PAID BY ADDRESSEE

# *The LPTV Report*

P.O. BOX 25510  
MILWAUKEE, WI 53225-9990



# The LPTV Report

YES! Please send me The LPTV Report at the introductory subscription rate below:

- Two years, \$45.00 (Foreign orders add \$6.00 additional per year.)  
 One year, \$25.00  
 Payment enclosed (Payment in U.S. dollars only)  
 Bill me

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_ Telephone ( ) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip (9 digit) \_\_\_\_\_

**SUBSCRIPTION GUARANTEE:** If you do not find The LPTV Report completely satisfactory, you may cancel your subscription and receive a full refund.

**Please help us serve you better. Check the one category that best describes your company.**

- LPTV Station Licensee or Construction Permittee  LPTV Station Applicant  Full Power TV Station  
 Cable TV System  DBS, SMATV, or MMDS System  Satellite  Radio Station  TV Equipment Manufacturer  
 TV Equipment Dealer/Distributor  Programming Producer/Distributor/Syndicator  Financial Institution or Broker  
 Attorney/Law Firm or Government Official/Agency  Advertising Agency/Rep Firm  Consultant/Research Company  
 Trade Association  Press or News Service  Educational Institution/Library  Other \_\_\_\_\_

# The LPTV Report

YES! Please send me The LPTV Report at the introductory subscription rate below:

- Two years, \$45.00 (Foreign orders add \$6.00 additional per year.)  
 One year, \$25.00  
 Payment enclosed (Payment in U.S. dollars only)  
 Bill me

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_ Telephone ( ) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip (9 digit) \_\_\_\_\_

**SUBSCRIPTION GUARANTEE:** If you do not find The LPTV Report completely satisfactory, you may cancel your subscription and receive a full refund.

**Please help us serve you better. Check the one category that best describes your company.**

- LPTV Station Licensee or Construction Permittee  LPTV Station Applicant  Full Power TV Station  
 Cable TV System  DBS, SMATV, or MMDS System  Satellite  Radio Station  TV Equipment Manufacturer  
 TV Equipment Dealer/Distributor  Programming Producer/Distributor/Syndicator  Financial Institution or Broker  
 Attorney/Law Firm or Government Official/Agency  Advertising Agency/Rep Firm  Consultant/Research Company  
 Trade Association  Press or News Service  Educational Institution/Library  Other \_\_\_\_\_

cable carriage in a Wednesday afternoon session featuring Ron Nicholas, general manager of TV-20 in Olean, NY; Roy Sheppard, owner of five cable systems as well as LPTV station K32AP in Jamestown, ND; and Michael Wright, vice president-affiliate relations of the ACTS Network. Les Luchter, managing editor of the cable weekly, *Multichannel News*, was moderator.

Nicholas, who pays Warner Cable 5¢/subscriber/month for carriage, won his spot on the system by enlisting the support of his viewers and local politicians.

Sheppard's station is carried on 12 systems, five of them his own. He warned LPTV broadcasters that cable owners change frequently, making long-term dealing difficult. Be as supportive and helpful as possible, he advised: draft a sample carriage agreement; offer to help the cable company install and maintain head-end receiving equipment. Most important, air quality programming—especially local programming—that will enhance the cable system's appeal to subscribers.

Michael Wright, whose ACTS Network owns or affiliates with 14 LPTV stations, suggested creating a support structure such as a board of community leaders who can help in negotiations with the cable systems. He cautioned broadcasters not to engage in adversarial tactics that would alienate the cable operator, but rather to help the cable system whenever possible. Like Sheppard, he advised LPTV operators air programming that strengthens the cable system's line-up.

#### Do Do Local News; Don't Rip And Read

Creating successful community news and public affairs programming was the topic of a session featuring Dr. Art Stamler of Ruarch Associates (W10AZ, Woodstock, VA) and Mark Osmundson of MTN Broadcasting (K39AS, Marshalltown, IA). The panel was moderated by Robert Horner, an Atlanta-based news consultant and producer.

Dr. Stamler emphasized the crucial importance of local news coverage. "LPTV stations *must* be devoted to local coverage," he stressed. Stamler also shared



Charles Larsen, Carole Cartwright, Dick Block, Ed Branca, and Neil Derrough share ideas on programming negotiation.

several tips about producing local news inexpensively, among them, using national weather services to get local weather information, and bringing a local angle to satellite-fed national stories whenever possible.

Osmundson pointed out the value of a versatile station staff. Everyone should be able to write, use a camera, and do post-production—abilities that prevent last-minute problems should someone suddenly leave or get sick.

Horner offered several tips on doing good newscasts inexpensively. Like Stamler, he stressed the importance of bringing the local angle into news programming: his suggestions included using local high school and college students and teachers to produce and/or comment on the news, as well as creating a community editorial board to do on-air news comment. Both ideas have the added promotional benefit of involving the community in the station.

#### The Power Of Promotion

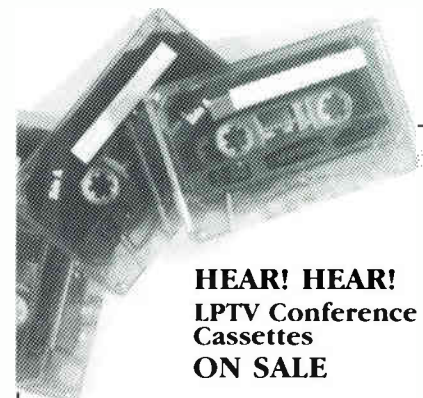
Lance Webster, executive director, and Jay Curtis, member services director, respectively, of the Broadcast Promotion and Marketing Executives, covered the basics of station promotion in a rapid-fire "Show and Tell"-style special presentation Wednesday evening.

The two traded dozens of hints on how to create good publicity relationships with other media in the community, how to write news and feature releases that get

printed, how to design effective press kits, what makes a good station logo, how to do on-air promotion, how to promote with contests, and several other topics. The talk was supplemented with clips of effective promotional spots from the history of television.

#### Careful Planning Is Critical, Say Management Experts

Probably the most important element in a successful LPTV broadcast operation is planning. That was the consensus among three Thursday morning speakers on good station management. Moderated



#### HEAR! HEAR! LPTV Conference Cassettes ON SALE

- #101 Programming: From Purchase to Placement
- #103 How to Equip Your LPTV Station
- #105 The Cable Connection
- #107 How to Develop a News Department
- #109 The Power of Promotion
- #111 Station Management
- #113 Local Production
- #115 Automation Systems
- #117 The LPTV Legal Clinic
- #119 Election '88/FCC Update with Keith Larson
- #121 LPTV Pioneer Panel

\$5.00 each

Number ordered \_\_\_\_\_ Total \$ \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City, ST, ZIP \_\_\_\_\_

Payment must accompany all orders.

Make checks payable to:

**Community Broadcasters Association**, P.O. Box 26736, Milwaukee, WI 53226.

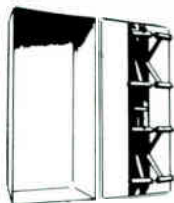
Allow 4 weeks for delivery.



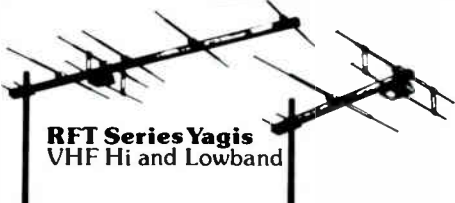
Les Luchter, Roy Sheppard, Michael Wright, and Ron Nicholas discuss the "Cable Connection."

# LPTV Commercial Antennas

*Lindsay*



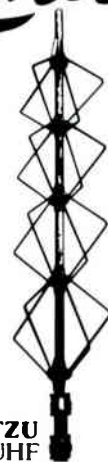
**UP1469**  
UHF  
Broadband



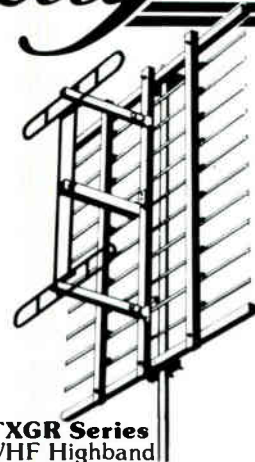
**RFT Series Yagis**  
VHF Hi and Lowband



**TS Series**  
Omni-directional



**TZU**  
UHF



**TXGR Series**  
VHF Highband

- ★ Custom engineered to your specifications
- ★ Weather protected for any climate
- ★ Vertical, horizontal or omni-directional
- ★ VHF/UHF, single channel or broadband

**LINDSAY SPECIALTY PRODUCTS LIMITED**

50 Mary Street, Lindsay, Ontario, Canada, K9V 4S7 (705) 324-2196 FAX: 705 324 5474

Circle (12) on ACTION CARD



*Dr. Art Stamler, Bob Horner, Mark Osmundson on effective news productions.*

by Steven Schmidt, who is building a UHF LPTV station in suburban Philadelphia, the panel featured John Kompas and Richard P. Wiederhold of Kompas/Biel & Associates, and D. J. Everett, III, general manager of W43AG in Hopkinsville, KY.

Kompas advised broadcasters to conduct frequent and thorough audience and advertiser ascertainment, carefully analyze all competition to the station, and deal with cable successfully by analyzing and responding to the cable operator's needs. Wiederhold stressed the value of a detailed strategic plan to a successful

start-up operation. He also cautioned LPTV broadcasters to resist the temptation to give up a large percentage of ownership out of a desire to get funding at all costs, and to stick to priorities once the station is running.

Everett offered practical advice based on his four years of operation: find a programming niche and then stick to it; make sales people accountable for sales by requiring detailed daily action plans and end-of-day sales reports; develop a strategic marketing plan; and try to work with, rather than against, competitors.



*Roger Strawbridge, Tom Carbaugh, Ernest Tunmann, and John Kompas examine automation systems.*

## Get Out The Philodendron

"Making the Best Use of Your Studio" was the title of a concurrent Thursday morning panel moderated by Bob Lyons of W08BV in Columbus, OH. Michael Williams, production manager for KTNV in Las Vegas, praised the versatility of an inexpensive potted plant as a studio prop and of chromakey as a multipurpose backdrop. He also suggested doughnut spots—standard spots containing a "hole" that can be updated periodically—as a low-cost way to handle commercials for clients, such as supermarkets, who change ad content frequently.

Ron Kniffin, president of Uni-Set Corporation in Rochester, NY, discussed set design methods. A studio set should be functional, stressed Kniffin, creating the right atmosphere while at the same time providing a convenient vehicle for graphics or other visuals. He also outlined the relative advantages and disadvantages of "home-made" sets; custom-made, permanent sets; and sets made from modular, reusable pieces.

Thursday afternoon, Ernest Tunmann, president of Tele-Engineering Corporation; Roger Strawbridge, director of marketing for Adams-Russell Electronics; and Thomas Carbaugh, president of Telecommunications Products Corporation, presented a seminar on automation systems. The advantages and operation of several types of commercial insertion and computerized management systems were discussed.

## Regulations, HDTV Dominate Legal Panel

"Write your senators and representatives in Congress," urged Peter Tannenwald, CBA general counsel and moderator of the "LPTV Legal Clinic," also on Thursday afternoon. "If they know you're



Ben Perez, George Borsari, and Peter Tannenwald discuss LPTV legal issues.

out there in large numbers serving their districts, LPTV will be assured of a permanent home in the spectrum." The remark was part of a discussion on general legal issues of concern to LPTV broadcasters, among them the pending spectrum allocations for high-definition television systems.

George Borsari, partner in the Washington, DC law firm of Bechtel, Borsari, Cole & Paxson, warned the audience that the FCC is probably only one year away from resolving HDTV spectrum issues. He urged LPTV broadcasters to watch the issues closely and make their views known to the Commission. High definition TV can become an opportunity for LPTV, he said, if LPTV broadcasters take the lead in introducing it to the marketplace.

Panelist Benjamin Perez, former legal assistant to Commissioner Henry M. Rivera and presently a principal with the consulting firm, Abacus Communications, discussed operational requirements for LPTV stations and explained the syndex and territorial exclusivity ("terrex") rules now in revision at the FCC.

Following the Thursday afternoon panels was a "Network Forum" in which representatives from eight programming networks presented overviews of their services. The evening closed with a cocktail reception hosted by the Capitol Television Network.

#### Communications In The Next Four Years

Friday morning opened early with a discussion of how communications issues will be handled by the next Presidential

administration. Stephen A. Sharp, former FCC commissioner under Mark Fowler and now head of the communications law practice of Skadden, Arps, Slate, Meagher & Flom in Washington, DC, represented the Republican camp; Larry Irving, chief counsel, mass media to the House subcommittee on telecommunications and finance and former legislative director and counsel to Congressman Mickey Leland (D-TX), spoke for the Democrats. Don West, managing editor of *Broadcasting*, moderated.

The discussion centered on three issues—the Fairness Doctrine, must-carry, and high definition TV. Irving and Sharp agreed that broadcasters will have to accept the Fairness Doctrine if they want must-carry. Irving said that although Congress has traditionally supported broadcasting over other technologies, it is not willing to trade the Fairness Doctrine, which it regards as "the cornerstone of public responsibility," for must-carry.

Sharp, however, speculated that both the Fairness Doctrine and must-carry will eventually be declared unconstitutional. As for cable carriage, "The best way to profits is community service," he asserted, saying that a shift among broadcasters to an emphasis on community service will eliminate the need for additional legislation.

Both speakers agreed that the marketplace philosophy will continue at the Commission, although Irving predicted a "softening." "There is a concern in Congress," he added, "that the Commission does not respect the legislative process." Sharp urged that Congress and the Com-



Bob Lyons, William Coleman, and Ron Kniffin answer questions from the audience during their panel on the effective use of a studio.

## LPTV Distribution by State and Territory

October 31, 1988

	Licenses	CPs*
ALABAMA	4	23
ALASKA	220	34
ARIZONA	10	35
ARKANSAS	5	32
CALIFORNIA	19	67
COLORADO	11	33
CONNECTICUT	0	6
DELAWARE	2	1
WASHINGTON, DC	0	1
FLORIDA	18	79
GEORGIA	5	47
HAWAII	1	19
IDAHO	5	42
ILLINOIS	2	25
INDIANA	4	21
IOWA	5	46
KANSAS	3	56
KENTUCKY	5	21
LOUISIANA	3	44
MAINE	4	10
MARYLAND	1	1
MASSACHUSETTS	5	13
MICHIGAN	3	17
MINNESOTA	15	35
MISSISSIPPI	8	14
MISSOURI	7	39
MONTANA	14	43
NEBRASKA	3	14
NEVADA	11	17
NEW HAMPSHIRE	1	5
NEW JERSEY	2	6
NEW MEXICO	8	50
NEW YORK	8	40
NORTH CAROLINA	4	36
NORTH DAKOTA	2	17
OHIO	5	33
OKLAHOMA	15	26
OREGON	14	32
PENNSYLVANIA	6	18
RHODE ISLAND	0	2
SOUTH CAROLINA	0	22
SOUTH DAKOTA	4	17
TENNESSEE	11	41
TEXAS	25	124
UTAH	15	14
VERMONT	0	7
VIRGINIA	2	18
WASHINGTON	5	27
WEST VIRGINIA	0	3
WISCONSIN	7	27
WYOMING	11	47
GUAM	1	0
PUERTO RICO	0	10
VIRGIN ISLANDS	0	1

TOTALS: Licenses: 539

Construction Permits: 1,458

\*Construction Permits

**Kompas/Biel & Associates, Inc.**



LPTV pioneers Bill Allonas, Jim Pry, Michael Couzens, and D. J. Everett.

mission begin to build bridges so that issues can be acted on effectively.

Both also urged LPTV operators to be more vocal in letting Congress know about issues that affect them. "Congress wants to do what it can to help broadcasters," said Sharp, "but it doesn't know much about LPTV."

#### LPTV License Applications On The Increase Says Keith Larson

"LPTV is alive and well in Washington," announced Keith Larson, chief of the FCC's LPTV Branch, to a standing-room-only crowd following the Irving-Sharp panel.



Keith Larson answers questions about LPTV regulations.

Of the 1,004 applications filed in the June 1988 window, Larson said, 675 were LPTV applications. About one-third were returned for predicted interference under the Commission's letter-perfect standard, about one-sixth will enter lottery, and "exactly 50%" of the window applications have been proposed for grant by the end of the year.

The backlog of applications filed prior to 1984 is down from a high of 37,000 in that year to just 2,900 now, most of which are tied up in the land mobile freeze or awaiting the Mexican border treaty—which, Larson said, should be signed in "the next two or three months."

However, Larson said that the rapidly increasing number of license applications is "the most significant indicator of the health of the industry." He said that there are now about 540 LPTV licenses outstanding and predicted that the Commission will soon be opening "three to four" application windows a year.

On the question of LPTV's secondary status, Larson said simply, "If it were not for this, we would not have LPTV." The secondary status was the trade-off the Commission made for the service's lack of regulation. The present mood at the FCC is to keep the secondary status, at least until the high-definition television issues are resolved, he said. He reassured LPTV

operators, however, that "The FCC cares about LPTV, about diversity of programming and ownership. We don't see you as second class citizens even though LPTV is a secondary service."

Larson said that some 300 LPTV stations displaced by full power or land mobile allocations had moved successfully to new channels. A few displacement applications have been turned down, he conceded, because of predicted interference to existing allocations. But, he added, "We've worked with those applicants so that they can refile."

Larson predicted more LPTV grants in the Appalachians and Rocky Mountains because of the FCC's new ruling allowing terrain shielding in LPTV applications.

He said that once the backlog is dealt with and windows are opening three or four times a year, he would support a Rulemaking that would allow LPTV major change applications to be filed outside of a window.

"I think you need to grow, get stronger, become more visible, go to the Commission, go to the Hill." What regulators hate worst, he reminded the LPTV broadcasters, is "taking something away from someone."

"You guys are going to make it. You're providing a very valuable service in the public interest. But don't take things for granted. Keep coming back."

#### Pioneers Stress Economical Management

Four LPTV pioneers were featured in the final panel of the convention on Friday. Michael Couzens, who as an FCC staff attorney was one of the three original architects of the LPTV service; D. J. Everett, III of W43AG, Hopkinsville, KY; and James Pry, II and Bill Allonas of W54AF and W22AE, Bucyrus, OH narrated their experiences with the early LPTV industry.

Couzens reminded the audience that "LPTV is economically powerful to the extent that it is economically efficient," and cautioned prospective operators not to over-extend themselves financially. Everett offered practical advice on how to operate a station inexpensively: "You don't have to have the biggest tripod to do the best job." Pry and Allonas, who started their stations "on the cheap" ("We even dug our own tower holes!"), emphasized again the importance of local programming to a successful operation: "We started with a one-person newscast. We did a lot of high school sports. We shot any kid that we could get in front of our camera. It worked."

All four panelists urged LPTV operators to contact their Congressional representatives. "Congress doesn't know about us yet," said Pry. "But they have to find out. We're going to be a major element in the broadcasting industry, and we have to have input into communications policies."

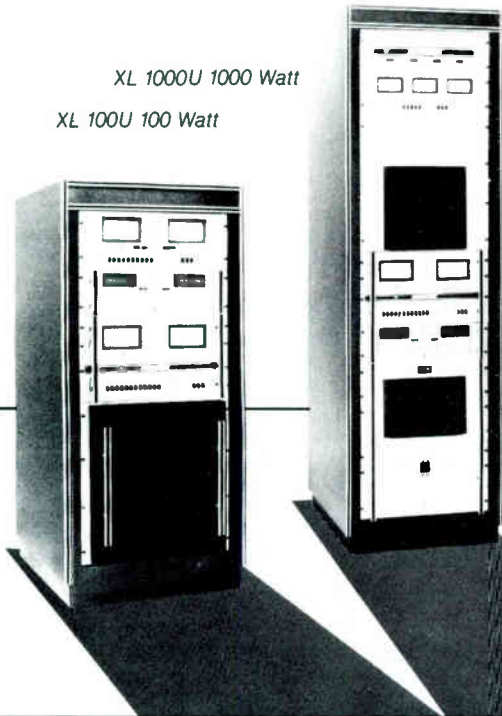


Don West moderates as Larry Irving and Stephen Sharp discuss communications issues in 1989.



XL 1000U 1000 Watt

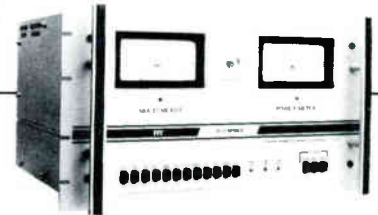
XL 100U 100 Watt



## When you go into low power television... go in strong with TTC transmitters.

TTC offers a full line of outstanding television transmitter/translators:

- **XL 100U**—For 100 Watt UHF TV, the XL 100U is 100% solid state designed for unattended operation in remote and hostile environments.
- **XL 1000U**—Long term reliability, performance, and advanced capabilities make the XL 1000U the best selling 1000 Watt UHF transmitter in the world. It can be used as a translator with VHF or UHF input, or as a transmitter for use with satellite, microwave or audio/video input.
- **XL 10U and XL 20U**—These "power flexible" 10 Watt and 20 Watt units are TTC's most affordable, featuring VHF, UHF, or modulator input.
- **Compact design**
- **Full VSWR protection**
- **Low power consumption**



XL 20U 20 Watt

**The quality is TTC.**

TELEVISION TECHNOLOGY CORPORATION

For free product literature or additional information, call or write:  
P.O. Box 1385 • Broomfield, CO 80020  
(303) 665-8000, Ext. 202

Circle (7) on ACTION CARD

## FCC Investigates Broadcast Application Abuses

Several apparently fraudulent broadcast applications have been targeted for investigation by the FCC's chief administrative law judge as part of an effort to warn broadcasters and their attorneys that application abuses will not be tolerated.

The investigation, to be completed by November 1 with a report to the Commission scheduled for the end of the year, centers on applications that appear to have been filed on behalf of or with the assistance of Dr. Bernard Boozer of Central Square, NY.

Some of the applications appear to contain fictitious names, and some mutually exclusive applications may have been filed by parties who are connected with one another. There is evidence that most of Boozer's filings were for the purpose of obtaining settlement agreements rather than actual construction permits.

FCC chairman Dennis Patrick said that the investigation is intended "to send a serious message to both would-be applicants and their legal counsel that we will not tolerate abuse in any context..." of new, renewal, or transfer application

processes. "The filing of false information and applications for purposes of settlement with the Commission violates our rules, wastes our resources, and injures bona fide applicants and the public. We will not countenance such abuse," said Patrick.

Fraudulent applications may be sanctioned by the FCC and may also be referred to the Department of Justice for possible criminal prosecution. Fraudulent

participation by attorneys may result in disbarment from practice before the FCC.

Boozer, as sole stockholder and President of Paradise Broadcasting and Communications Systems, Inc., was earlier found to have misrepresented his financial qualifications as an applicant for an FM construction permit at Illion, NY. It was after this finding that he began filing applications under false names, alleges the Commission. [M/B]

## Renewal Processes Under Scrutiny

The FCC has issued a second Further Notice of Inquiry and a Notice of Proposed Rulemaking seeking ways to eliminate abuses of the renewal process. The proceedings are prompted by the Commission's concern that parties may be filing competing applications and/or petitions to deny a renewal application in order to reap monetary settlements for profit rather than to raise valid questions about an incumbent licensee's ability to

serve the public.

Chairman Dennis Patrick, in a statement issued with the announcement, condemned the "murky and inconsistent" comparative renewal process now in use and expressed his commitment to reducing its complexity and potential for abuse. "I strongly urge those who have fallen prey to abuse of our processes to file in this docket," he said. [M/B]

# One Mistake.

That's all it takes to get your LPTV application kicked back without consideration.

Applications must be letter perfect upon submittal; corrections and re-submittals will not be allowed.

## **Guaranteed Right.**

More and more LPTV broadcasters are calling on Kompas/Biel & Associates for professional application preparation.

Because Kompas/Biel has the experience and expertise to do it right the first time, we guarantee that your LPTV application, and all the paperwork that goes with it, will be letter perfect.

## **Grand Opening.**

Soon the FCC will announce a new filing

window for LPTV applications. Join the hundreds of entrepreneurs already staking their claims in television's newest frontier.

Call the leading consultants to the LPTV industry.

Call Kompas/Biel & Associates and avoid the chance of a costly . . . mistake.

**LPTV market analysis, engineering and business planning also available.**

**Kompas/Biel & Associates, Inc.**

1-414-781-0188

P.O. Box 25510

Milwaukee, WI 53225-0510

Circle (10) on ACTION CARD

nology, however, has addressed this limitation by technically solving the problems relating to signal quality and color separation. But solving these problems has introduced the new problem of the S-VHS format.

The obvious rule is that formats— $\frac{3}{4}$ "  $\frac{1}{2}$ " VHS, and  $\frac{1}{2}$ " S-VHS—are not interchangeable. Even if tape width is the same, formats may not be interchangeable—Beta and VHS, for example. Although an S-VHS machine will record and play back a VHS tape, the quality of the signal will not be as good as the quality that would be obtained from the same machine if S-VHS recording tape were used.

### **Types Of Videotape Machines**

Videotape machines fall into three categories—production, editing, and playback—depending on what the machine is expected to do. A production recorder preserves images on tape for later editing. The editing VCR plays back an image on one machine and records it on a second machine. (In some cases, as many as five VCR's can be playback sources for one editing recorder.) The playback machine must reproduce the best signal possible from a recorded tape so that the edit recorder can capture the best possible image and record it on another tape.

Production equipment, itself, is broken into two sub-categories—studio production and field production, which includes electronic news gathering (ENG) equipment. Both categories demand a high quality machine that will record the best quality images for later playback.

In field production, the recorder may be bounced around in racks, in a van, or on the back of a VCR operator; so it must be durable as well as reliable. Field recorders are lighter and more compact than studio production recorders. Their technical strength lies in their ability to record images and sound which meet the highest technical standards. Their designs emphasize compact form and superior audio and video recording performance.

Studio recorders, however, live in a secure physical environment. Because they do not have to be bounced around or

exposed to extremes in temperature, dust, and humidity, they can have more sensitive features. Their main function, recording and playback of video and audio, must still meet strict technical standards, but they can have additional options and features that enhance the treatment of recorded signals.

Post production, or editing, requires the manipulation of recorded images with other technical sources (graphics, ADO, keys...) for the purpose of "packaging" a finished presentation. In post production, an original image may be copied as many as four times on the way to becoming a finished product. This causes losses in signal quality, a serious consideration because of the effect on the station's on-air image. Thus post production machines must reproduce recorded images without great signal loss or the addition of excessive machine error.

The requirements for playback VCR's are the opposite of those for production units. The primary responsibility of the playback VCR is to provide the best duplication of signals on the finished videotape. Thus, high quality audio and video output is the primary criterion for evaluating a playback VCR. Obviously, the performance of the playback VCR also depends upon the technical quality of the recorded information it is to duplicate as well as its own technical performance.

In summary, the primary responsibility



The new Hitachi VL-S100 S-VHS recorder.



### 3/4" VIDEO RECORDING

	JVC CR-4900U	Sony VO-6800	Sony VO-5850	Sony BVU-950	
VIDEO	----- FM Recording -----				
Bandwidth					
S/N					47dB
SP					
S					
Conventional	46dB	45dB	46dB	47dB	
Horizontal Resolution					
SP					340
S					
Conventional	260	250	260	260	Video information reported in the color mode.
AUDIO					
S/N					52dB
SP					
S					
Conventional	48dB	50dB	48dB	50dB	
Wow & Flutter	—	—	—	0.15% rms	
Frequency Resp.					50Hz to 15KHz
SP					
S					
Conventional	----- 15Hz — 15,000Hz -----			50Hz to 15KHz	

### VHS AND S-VHS 1/2" VIDEO RECORDING

	JVC VHS BR-8600U	JVC S-VHS BR-S810U	SHARP S-VHS XA-2500S	PANASONIC VHS AG6500	PANASONIC S-VHS AG7500
VIDEO	----- FM RECORDING -----				
Bandwidth					
S/N					
SP					
S					
Conventional	45dB	45dB	45dB	45dB	45dB
Horizontal Resolution					
SP					
S					
Conventional	240	400	400	240	400
AUDIO					
S/N					
SP					
S					
Conventional	44dB	44dB	43dB	48dB Normal 75dB HiFi	80dB HiFi 48dB Normal
Wow & Flutter	0.25% rms	0.005% wrms	0.005% wrms	—	—
Frequency Resp.					
SP					
S					
Conventional	20-12,000Hz	20-20,000 Hz	20-20,000Hz	50-12,000Hz	50-12,000Hz

of a VCR is to record technically stable images and audio for later manipulation or distribution.

#### Analog vs. Digital Recording

In analog technology, all video or sound information, including noise, is recorded. Digital recording technology differs from analog in that a sampling technique is used to assign digital values to the signal only. Noise is virtually eliminated in this process because only the signal is sampled. Therefore, a digital recording reproduces a clearer video or audio signal during playback.

#### Selecting A Video Recorder/Player

To evaluate a VCR, try it out under the operating conditions in which it will be expected to perform. In an "on-site" trial, you can determine the quality of video recording and signal duplication, as well as what will be required of station personnel during the unit's operation. The best VCR for a particular television station is the VCR that meets that station's specific production and distribution needs.

The accompanying glossary and comparison tables may help you organize your thoughts as you make your VCR purchasing decisions

**Carrier frequency range:** Sometimes called bandwidth. A higher MHz means an improved picture.


**Lines of resolution:** More lines of resolution create a better opportunity for improved picture quality and detail.

**Signal-to-noise ratio (S/N):** Picture graininess measured in decibels (dB). The higher the number, the better the relationship of signal to noise (interference) on the tape.

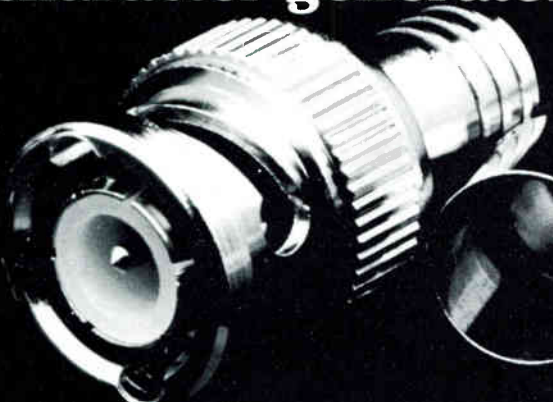
**Tape requirements:** Some newer VCR's perform better when special tape is used. They will record and play back other kinds of tape, but with lower technical quality.

**Recording of luminance:** The higher the frequency, the better the luminance signal generation. The result is a recording with more luminance information. The S-VHS range is usually 5.4 MHz to 7.0 MHz. Each increase of 1 MHz in carrier frequency adds nearly 80 lines of horizontal resolution.

**SP (superior performance):** Used to designate some 3/4" formats. In VHS formats, "S" is used instead of "SP." The FM video carrier has been shifted approximately 1.2 MHz up to allow for an increased bandwidth for handling luminance and chrominance signals.

Michael J. Havice, Ed.D. is assistant professor of broadcast communication at Marquette University. He is a specialist in video production and interactive video technologies. 

## From a simple BNC connector to a sophisticated character generator ...



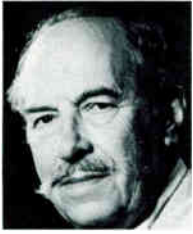
The Comprehensive Video Supply catalog has what it takes to make your production process quicker, easier, better.

Be sure to get the latest issue from your authorized Comprehensive dealer, or call 800-526-0242 (in NJ 201-767-7990) today.

**Comprehensive**  
VIDEO SUPPLY CORPORATION

148 Veterans Drive • Northvale, NJ 07647

Circle (89) on ACTION CARD



## Technical Talks

—by John H. Battison, P.E.

This column is based on the talk that I gave at the First Annual LPTV Conference at Las Vegas in October. The occasion was the seminar on equipping an LPTV station, and my presentation was about transmitters.

Transmitters are a very important part of the overall television transmission picture—whether an LPTV or a high power operation. They form the major part of the total transmission line. But despite their importance they should not be considered alone.

For this purpose we assume that the studio equipment is producing a perfect video signal, and the final link—the transmitter, transmission line, and antenna—must be regarded as a single unit that is "transparent" to the video signals. "Transparent" is a fairly new catch word in the television vocabulary; it means that a piece of equipment has no discernible effect on the video that passes through it. For example, a transmitter that distorted the synchronizing color burst signals could cause incorrect colors or even no color on the receiver. The list of possible degradations caused by improper transmitter operation is long.

### Should You Buy Used Equipment?

The choice of manufacturer varies depending on the band, and to a lesser extent, the power. In VHF operation, the present maximum transmitter output power (TPO) is 10 watts. One's choice is also limited by the number of LPTV transmitter manufacturers. Price is somewhat controlled by the same limits. However, sometimes the circumstances of the transmission system make it possible to buy equipment at a "quantity discount." For instance, I had a client who used multiple amplifiers at VHF, each feeding separate antennas—quite legal. He was able to negotiate a very good price.

The 10-watt transmitter will always use transistors, with consequent low heat and power requirements. As the power increases to 100 or 1,000 watts in the UHF band, the variety is greater. For the 100-watt operation transistors are the norm, although it is possible to buy a second-hand tube-operated 100-watt UHF transmitter. There is nothing wrong with buying second-hand equipment—provided that you have it examined by a good technician before purchase, and obtain a statement (with teeth) guaranteeing its performance.

Some time ago the market was full of used transmitters from LPTV's that had gone dark. Now the supply has decreased. If you do buy a used transmitter, be sure to confirm that it does not require three-phase AC power. Providing three-phase AC power to a transmitter site can be quite expensive.

One of my clients bought a new TTC 100-watt unit when he went on the air and added a 1 KW amplifier when he increased power. Then when he obtained his second channel he bought a used 1 KW transmitter which, after being retuned and returned, was very satisfactory.


### Transistors Vs. Tubes

There is no doubt that transistorized transmitters are preferable. However, not many are being made yet in UHF. In the tube type, I prefer models using an American-made tube in the final output stage. This preference is based on experience over many years with a transmitter that used a foreign-made tube. It was necessary to replace this about every year at prices that rose from \$3,500 to about \$5,000 over the period. This was for a transmitter where full power output was obligatory. In the case of an LPTV operation, it would be possible to operate longer at a lower power output and accept slightly less coverage for a longer time.

Transmitter prices have come down since LPTV first started. At NAB this year I was offered well-known equipment at \$43,000 for a 1 KW transmitter; prices from other manufacturers varied up to around \$58,000. Buying a transmitter is like buying a car—the price is generally amazingly negotiable!

I said earlier that the transmission system should be considered as a unit. Transmission line may seem like an unimportant item, but it is very important. You are limited to 1 kw TPO, so be sure you get as much power as possible to the antenna!


Transmission line is like a garden hose—the smaller diameter and cheaper hose gets less water to the nozzle, and tends to crack and leak. The larger hose gives more water at the end and does not leak as much. It's the same with coaxial line: the smaller line has higher losses and so delivers less power to the antenna; cheaper line generally gives problems.

John H. Battison, P.E. is president of John H. Battison & Associates, Consulting Engineers, in Columbus, OH. 

## Prime Image Appoints New Marketing Head




Charles J. Motta

Charles J. Motta, Jr. has accepted the position of vice president of marketing with Prime Image, Inc., a Saratoga, CA manufacturer of time base correctors and frame stores. He will be responsible for working with East Coast and off shore dealers. 

## Sony Names New Midwest Regional Manager


Terry Younce has been named the new Midwest regional sales manager for the Broadcast Products Division of Sony Communication Products Company.

Based in Chicago, Younce will handle Sony broadcast product sales in the 13-state Midwest region. 

## Another Radio Fined For Bingo Ads

The Federal Communications Commission has upheld a Mass Media Bureau action fining Windsor Communications, Inc. \$5,000 for broadcasting bingo advertisements over WHSM-FM in Hayward, WI. The radio aired ads for bingo games sponsored by the Lac Courte Oreilles Tribal Government.

Section 73.1211(d)(1) of the FCC's Rules defines a lottery as "the pooling of proceeds derived from the sale of tickets or chances and allotting those proceeds or parts thereof by chance to one or more chance takers or ticket purchasers. It does not include the placing or accepting of bets or wagers on sporting events or contests." Under federal law, a lottery contains the elements of prize, chance, and consideration. Thus bingo is a type of lottery.

Earlier this year, the Commission imposed \$6,000 fines on two other radios (LPTV Report, June 1988) for promoting lotteries sponsored by Native American tribes, one of whom had argued that Indian tribes were exempt from the prohibition under the clause in the law that excepts "state-conducted" lotteries. 



# LPTV and the LAW

## Telco Video Systems: Should They Be Authorized?

—by Peter Tannenwald

On September 22, 1988, the FCC published a proposal to allow telephone companies to provide video programming services—in other words, to get into the cable TV business. The implications of this proposal could be profound for the LPTV industry. It could result in a new monopoly that makes the local cable system look like a rank amateur and establishes a new and formidable barrier to our entering the viewer's home. Or it could introduce local competition that will result in a race between cable and the telco to see which one can deliver the most LPTV signals to their customers the fastest.

### Broadcast Industry Loses In Sanyo Appeal

The U. S. Court of Appeals, D. C. Circuit, has upheld an FCC ruling that Sanyo Corporation's two-channel television receiver is exempt from the All-Channel Receiver Act of 1962 under which devices designed to receive broadcast television signals must be able to receive all channels.

The Sanyo device, which is no longer being marketed, received only broadcast channels 3 and 4 and was intended to be used as a display terminal for home VTR's, personal computers, and similar image sources.

The Community Broadcasters Association had joined the Association of Maximum Service Telecasters and other groups in a brief filed in May urging that the receiver be included in the All-Channel Act (LPTV Report, June 1988). The main argument was that cable subscribers using the receiver would be deprived of access to any over-the-air signals that were not being carried on their cable system.

However, the Court of Appeals agreed with the FCC that since the device was not originally intended to receive any channels except 3 and 4, it should not be subject to the All-Channel Act.

Telco video systems will not happen overnight. Right now, they are against the law. Moreover, the AT&T divestiture court decree prohibits the Bell Operating Companies, or BOCS, from supplying video material. They can only deliver material furnished by others.

#### FCC Favors Telcos

The FCC is not daunted by these obstacles. In its proposals, the Commission has made it clear that it favors letting telcos loose to do as they please, with only minimal restrictions. If a statute and a court decree stand in the way, then they should be changed. Moreover, the statute includes an exception for telcos in rural areas, and it may be possible to grant waivers, so there is a chance to get started even if Congress does not act. Indeed, the FCC has in mind granting waivers whenever a telco promises to bring new broadband technologies to the home with a service that is switched at a central office, can deliver multiple video signals, and is available for use by independent service providers.

And if the FCC cannot get local telcos into the business, they plan at least to interpret the statutory cable/telco ban to exclude AT&T, thus giving AT&T the opportunity to offer video services.

The FCC's theory is that cable is a monopoly that has proved difficult to control. Perhaps the best, if not the only, practical way to control cable is to let someone else play the game. But overbuilding a cable system is no joke. The FCC feels that the only other party that has the economic resources and is seriously likely to take the risk is the telephone company. While the telephone company itself could become an undesirable monopoly, the FCC believes that that is unlikely to happen: because cable already covers most of the country, a telco will almost always be the second system on the scene rather than a monopoly.

#### Dial Your Own Programming?

The telcos seem to have convinced the FCC that the United States will soon fall behind the rest of the world if we do not

get optical fiber into everyone's home soon. And only they have the money and the willingness to make the required investment. The FCC foresees a "video dialtone" service, where you can pick up your videophone and dial whatever program or other video service you would like to watch or use any time you like.

What does the prospect of telephone company video services mean to the LPTV industry? That is not an easy question to answer. As part of the analysis, I would pose the following questions:

1) Do you think that telcos will be more likely to carry LPTV's than cable systems? Telephone companies have traditionally been oriented toward carrying and delivering as much traffic as possible. Will that attitude translate into greater LPTV carriage than the cable TV industry has provided, or will telcos change their stripes and try to keep us off their systems so that they can develop and market their own program origination services?

2) Telcos are accustomed to charging for their services. If they do carry LPTV's, will they charge the LPTV station, just the viewer, or both? If they charge us, will the amount be more or less than the very high prices that some cable systems are now charging for carriage?

3) If telcos compete with cable, might the competition be based in part on how many signals the system can deliver, thus starting a race to see which system can deliver LPTV signals first?

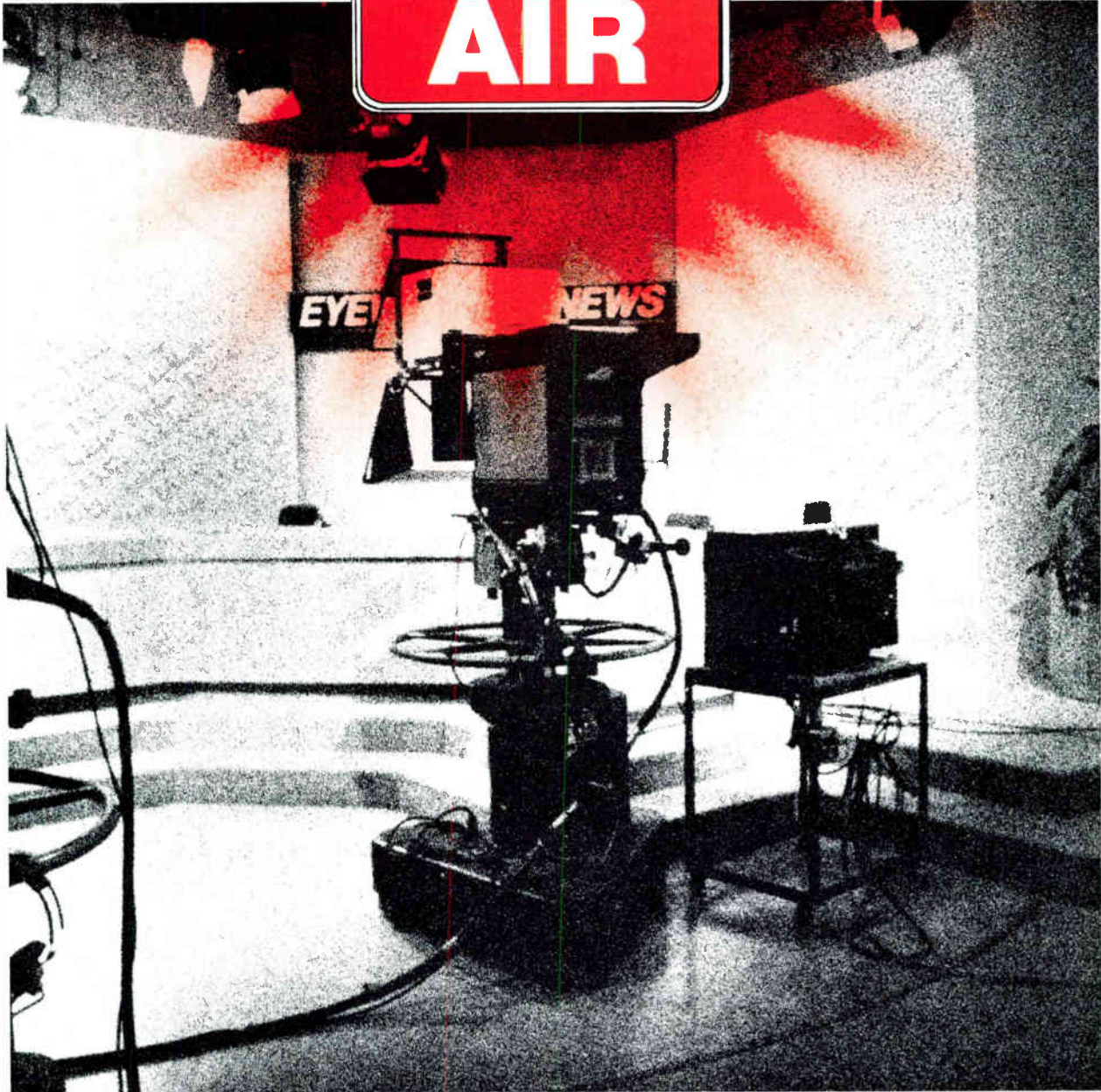
In other words, are we better off with competition because it will stimulate carriage of LPTV's, or will competition just bring more advertising sales people into the market to dilute our revenue sources even further?

The FCC has invited comments on its proposals. If you want to be heard, send an original and nine copies of your comments by December 1, 1988 to the Secretary, FCC, Washington, DC 20554. Be sure to refer on the first page to FCC Docket No. 87-266.

*Peter Tannenwald is a partner in the Washington, DC law firm of Arent, Fox, Kintner, Plotkin & Kahn. He is general counsel to the Community Broadcasters Association.*

# 5...4...3...2...1...

**ON THE  
AIR**



## You're on the air!

And your dream's come true. Your LPTV station is sending out a signal, loud and clear. Every hour of planning and every piece of equipment is backing that signal, because EMCEE is backing them: site selection, satellite earth station, transmitter, transmitting antennas and line, towers, translators. . . even a complete studio package of cameras, lighting, video switcher, audio console and more. EMCEE's 27 years of experience in low power television guarantee the best equipment, installation, service,

maintenance, training and parts. You wouldn't entrust your dream to just anybody. EMCEE is on the air with you. EMCEE BROADCAST PRODUCTS, Div. of Electronics, Missiles & Communications, Inc. White Haven, Pa. 18661 FAX (717) 443-9257 Call Toll-free: 1-800-233-6193 (In PA: 717-443-9575) TWX: 510-655-7088 Ans: EMCEE

Circle (1) on ACTION CARD

**EMCEE**

*advanced technology  
systems excellence*

# EXHIBITORS

## 1988 Community Broadcasters Association Convention & Exhibition

To a booth, exhibitors at the First Annual CBA Convention & Exhibition were well-pleased with the results of their efforts. LPTV broadcasters were in a buying mood throughout the four days of the exhibition.

Those of you who were unable to attend can still contact these companies for information about their products. Below, in alphabetical order, are the exhibitors and a brief description of the products of each.

In addition, we have listed contact information for the nine programming networks represented at the Convention.

**Acrodyne Industries, Inc.**  
516 Township Line Road  
Blue Bell, PA 19422  
(215) 542-7000

*Contacts:* John Delissio, Dave White, Joe Wozniak

Acrodyne manufactures TV transmitters for LPTV broadcasters, and offers complete RF packages and turnkey installations. The product line includes the Model TLU/100T 100-watt solid state UHF LPTV transmitter, and the Model TL/10T 10-watt VHF LPTV transmitter.

**Ad Dynamics**  
3448 Columbus Road  
Wooster, OH 44691  
(800) 332-8727

*Contacts:* Debbie Fenton, Robert Holtzclaw, Ken Jackson

Ad Dynamics is a marketing company with an in-house television production facility. It currently offers a half-hour weekly strip entitled "Wild in the Kitchen," available for syndication to LPTV operators by the first quarter of 1989. Also available is a weekly outdoors program for the third quarter of 1989. A new daily game show, "Celebrities," will be ready for airing in January 1989 and stars host Tony Peter Hoty of ABC's "Allo My Children." The company will also be offering an extensive movie library.

**Adams-Russell Electronics Company, Inc., ARVIS Division**  
300 Second Avenue  
Waltham, MA 02154  
(617) 890-5850

*Contact:* Roger H. Strawbridge

Automated video insertion systems, programming and motion picture automated playback systems.

**Army & Air Force Hometown News**  
Kelly Air Force Base, TX 78241-5000  
(512) 925-6261

*Contacts:* James Ammons, Larry Gilliam, Don Crites

Produces and distributes new features about members of the American armed forces. Productions are distributed to television stations in service members' hometowns.

**Bogner Broadcast Equipment Corporation**  
603 Cantiague Rock Road  
Westbury, NY 11590  
(516) 997-7800

*Contacts:* Carol Hamilton, Steve Weinstein

Manufactures standard and custom-designed LPTV broadcast antennas.

**Broadcast Promotion & Marketing Executives**

6255 Sunset Boulevard, Suite 624  
Los Angeles, CA 90028  
(213) 465-3777

*Contacts:* Jay Curtis, Spencer Mains, Lance Webster

BPME is a non-profit professional association of broadcast station publicity, advertising and promotion executives. Sponsors an annual convention and publishes a monthly magazine. An idea library/resource center is available for members.

**CASCOM, Inc.**  
707 18th Avenue South  
Nashville, TN 37203  
(615) 329-4112

*Contact:* Timothy J. McGuire

CASCOM features the Select Effects Library containing over 2,000 animated effects. The world leader in syndicated animation also offers station image packages, news and movie openings, and thematic sales tags packages. CASCOM has served the broadcast industry for ten years, with products in over 150 U.S. markets and 80 countries around the world.

**Discount Video Warehouse/Roscor Corporation**  
P.O. Box 36  
Mount Prospect, IL 60056  
(312) 299-5258

*Contacts:* Marc Grossman, Ed Lamarre

Design and supply of low power transmitters, towers, antennas, transmission line, satellite receiving antennas, video and audio production and studio equipment, plus complete turnkey installation of the above.

**Diversified Marketing**  
3918 West Clearwater  
Kennewick, WA 99336  
(509) 735-6812

*Contact:* Aaron Davis

Broadcast quality microwave studio-to-transmitter links and portable microwave video/audio transfer systems.

**Eastman Kodak Company**  
343 State Street  
Rochester, NY 14650  
(716) 724-3313

*Contacts:* Milt Jones, George Winter, Ben Stone

Manufactures and distributes Eastman professional video tape for all broadcast applications.



**TRYLON ABC Towers**

**A low cost alternative for two-way communications**

- 96' self support, delivered to your door for \$1500
- Designed to meet your unique requirements
- Rugged, dependable triangular construction

Give us a call

**TRYLON**  
Manufacturing Co. Ltd.  
P.O. Box 186  
21 Howard Ave.  
ELMIRA, Ontario  
Canada N3B 2Z6  
TEL. (519) 669-5421  
FAX (519) 669-8912

Delivery included to most major centres in the continental U.S.

Circle (67) on ACTION CARD

**EMCEE Broadcast Products**  
P.O. Box 68  
White Haven, PA 18661  
(717) 443-9575

*Contacts:* Paul G. Anthony, Jr.,  
Robert P. Luka

Complete line of LPTV transmitters, along with a new line of low cost transmitters and translators. The company is also introducing a new line of satellite receive equipment.

**Kidd Communications**  
4096 Bridge Street, Suite 4  
Fair Oaks, CA 95628  
(916) 961-6411

*Contact:* Chris Kidd

Sales and service of Television Technology transmitters, Bogner antennas, Scala antennas, M/A Com video microwave systems, Cablewave transmission line plus everything you need to complete your LPTV transmission package. Also LPTV application services, brokerage/sales services, and shopping network affiliation. Used equipment available also.

**Kompas/Biel & Associates, Inc.**  
P.O. Box 25510  
Milwaukee, WI 53225  
(414) 781-0188

*Contacts:* John Kompas, Jacquelyn Biel,  
Al Leon

Publishers of *The LPTV Report*; consultants and brokers in the LPTV marketplace.

**Lindsay Specialty Products**  
50 Mary Street West  
Lindsay, Ontario, Canada K9V 4S7  
(705) 324-2196

*Contacts:* Neil Evans, Koert Koster, A.  
Gordon Zimmerman

Manufacturer of LPTV antennas—1 watt to 1000 watts for UHF/VHF/FM frequencies, U/V/FM CATV/LPTV/MATV receive antennas, consumer domestic antennas, towers, and mounting hardware. Manufacturers of LPTV combiners and splitters, 1W to 1000KW, and single channel pre-amps.

**Lines Video Systems, Inc.**  
219 South Jefferson  
Springfield, MO 65806  
(417) 862-5533

*Contacts:* Lucille Buehler, Bud Lines

Lines Video Systems has been installing and servicing broadcast and commercial video equipment for over 20 years. The parent company, Lines Music Company, Inc., has been in business over 114 years. The company represents BTS/Phillips, Sony, JVC, and Harris and designs LPTV systems, production studios, and ENG vans. State-of-the-art service facilities are completely staffed.

# Ready. Get Uni-Set.<sup>®</sup> Go.



You've got a set-design problem. We've got a quick and easy answer: The Uni-Set<sup>®</sup> Modular Studio Staging System.

Design your set using the Uni-Set<sup>®</sup> Planning Model, working out your camera angles as you go. Then your studio floor people can easily assemble the full-sized modules into a workable setting in record time. The Uni-Set<sup>®</sup> Graphic Design System completes the transformation. In only a few hours you've gone from an idea to a finished, camera-ready setting.

Call Uni-Set<sup>®</sup> Corporation today, and let us show you how this low-cost, reusable staging system can solve your studio setting problems.

**UNI-SET<sup>®</sup>**  
**CORPORATION**  
449 Avenue A  
Rochester, New York 14621  
(716) 544-3820

Circle (29) on ACTION CARD

**NATPE International**  
10100 Santa Monica Boulevard, Suite 300  
Los Angeles, CA 90067  
(213) 282-8801

*Contacts:* Shelli Alspaugh, Phil Corvo

NATPE International is a professional membership organization for television program executives. Member benefits include an invitation to attend the television industry's most influential trade conference and an opportunity to participate in regional seminars. Members also receive several informative publications providing data on program distributors, station reps, and U.S. television stations.

**RFD-TV, Inc.**  
2615 Farnam Street  
Omaha, NE 68131  
(402) 345-2322

*Contacts:* Patrick Gottsch,  
Terese K. Spalding

The first superstation for and about rural America. RFD-TV's unique 24-hour, 7-day-a-week programming contains detailed market coverage, news, weather, documentaries, music videos (country, crossover, and polka), old western movies, and live coverage of events in rural

America, among other features. Programs of interest for the whole family.

**Television Technology Corporation**  
P.O. Box 1385  
Broomfield, CO 80020  
(303) 665-8000

*Contact:* Alexander De Lay

Television Technology Corporation is a manufacturer of VHF and UHF LPTV transmitters. Solid state design up to 100 watts VHF, 300 watts UHF, and efficient single-tube 1,000 watts UHF provide quality and reliable performance even in remote, hostile environments.

**Uni-Set Corporation**  
449 Avenue A  
Rochester, NY 14621  
(716) 544-3820

*Contacts:* Ronald D. Kniffin, Karl R. Wittie

UNI-SET is a modular staging system that provides any studio with a creative medium with which to rapidly design and arrange an unlimited variety of studio settings. Precision constructed of high quality materials, the system consists of twenty-six pieces that can be safely arranged and illuminated to achieve any visual effect.

*continued*


**US CommStruct, Inc.**  
206 State Street  
Binghamton, NY 13901  
(607) 724-0391

Contact: Terry Armant, James H. Lewis

US CommStruct is a telecommunications construction company offering complete turnkey construction, including site acquisition, engineering, civil works, materials acquisition, and electronics installation.

**Video Service of America**  
6929 Seward Avenue  
P.O. Box 29109  
Lincoln, NE 68529  
(800) 888-2140  
(402) 467-3668

Contacts: Lisa Honnor, Sandy Shelton, Janelle Strombeck

National wholesale distributor of 3M, Sony, Ampex, Fuji, Maxwell, and TDK video/audio tape; Panasonic industrial and consumer, JVC industrial, and Sony industrial and consumer video equipment; Panasonic CCTV equipment; video cases, bags, shelving, lighting and tripods, and photo lamps. An Inc. 500 Company, Video Service is the second largest tape distributor and one of Panasonic's top dealers in the nation. Great prices, superior customer service, excellent repair service, and prompt delivery. 

## PROGRAMMING NETWORKS

In a special CBA Convention session, each of the nine companies below presented their program offerings to the LPTV industry.

**ACTS Satellite Network**  
6350 West Freeway  
Fort Worth, TX 76150  
(817) 737-3241

Contact: Michael Wright

**Capitol Television Network**  
22251 Marlin Place  
Canoga Park, CA 91303  
(818) 992-8807

Contact: Jon F. Elliott

**Channel America**  
24 West 57th Street, Suite 804  
New York, NY 10019  
(212) 262-5353

Contact: David Post, Robert Mauro

**Country Music TV**  
2096 Edgcombe Road  
St. Paul, MN 55116  
(612) 699-0879

Contact: Patrick Dolan

**FamilyNet**  
P.O. Box 2251  
Lynchburg, VA 24501  
(804) 845-4146

Contact: David Lewis

**The Learning Channel**  
1525 Wilson Blvd., Suite 550  
Roslyn, VA 22209  
(202) 331-8100

Contact: John McLaurin

**RFD-TV**  
2615 Farnam Street  
Omaha, NE 68131  
(402) 345-2322

Contact: Patrick Gottsch

**Telemundo Group**  
1740 Broadway, 18th Floor  
New York, NY 10019  
(212) 492-5500

Contact: Charles Curan

**Video Marketing Network**  
2477 Stickney Point Road, Suite 319B  
Sarasota, FL 34231  
(813) 923-3722

Contact: Robert F. Murley

## Kodak Executive Urges Film Educators To Enter HDTV Debate

"We shouldn't accept a worldwide standard which limits the artistic potential of the next generation of filmmakers," said Joerg D. Agin in a recent speech before an international convention of film school administrators at the University of Southern California in Los Angeles. Agin was recently appointed a corporate vice president of Eastman-Kodak and general manager of Kodak's Motion Picture and Audiovisual Products Division.


"The educational community should understand the limitations as well as the potential of the various high-definition television systems currently being pro-



Joerg D. Agin

posed," Agin said. He noted that television programming produced on 35 mm film will be compatible with the best of

the proposed HDTV standards, including the 1125-line, 60 Hz system developed by NHK in Japan. However, he said, programming produced in current videotape standards, including NTSC, could probably no longer be distributed if the 1125 standard is adopted.

Agin spoke to some 125 educators attending the bi-annual CILECT Congress and International Film Festival in August. CILECT is the International Liaison Centre of Professional Film and Television Universities and Academies. Headquartered in Brussels, Belgium, it represents 59 schools in 33 countries. 

## Payola Is Illegal, FCC Warns Broadcasters

The Federal Communications Commission has issued a strong warning to broadcasters that payola is against the law and will not be tolerated. The announcement comes on the heels of an indictment in the U.S. District Court in Los Angeles of four persons as a result of a two-year investigation. One of the four is charged with trading "cash and cocaine" for airplay of certain records.


The Commission's public notice defines payola as "the unreported payment to, or acceptance by, employees of broadcast stations, program producers,

or program suppliers of any money, service, or valuable consideration to achieve airplay for any programming." Conviction can bring criminal penalties of fines or imprisonment or both, as well as penalties under the Communications Act.

Section 507 of the Act requires persons who pay or receive payments, or who agree to pay or receive payments, for airing certain programming to report that fact to the station licensee before the programming is aired. Section 317 of the Act requires that the fact that the program is paid for and the name of the person or

agency making the payment be announced on the air.

Both Section 317 of the Act and Section 73.121 (b) of the Commission's Rules require that licensees "exercise reasonable diligence" in their attempts to comply with payola laws. The public notice states that active efforts are necessary to prevent violations, that it is not enough merely to have employees sign affidavits that they will not violate such laws.

The Commission offered to advise stations concerned or confused about the legality of particular situations. 

# Supplier Side

Circuit Research Labs is now introducing its complete mono audio processor for the LPTV marketplace—the BAP-2000. The single rack unit contains a linearized two-band AGC followed by a variable transfer function pre-emphasis limiter with an integral 15 kHz low-pass filter. A built in 15.734 kHz (Fh) filter strips off the stray sync energy that often leaks into TV audio.



The Dynafex broadcast audio processor from CRL Systems.

Also built into the BAP-2000 is the dynafex single-ended noise reduction system which removes background noise from source material. A front panel G/R and output level LED bar graph display make set-up easy.

The BAP-2000 lists at \$1,950.

Contact: William L. Ammons  
Circuit Research Labs  
2522 West Geneva Drive  
Tempe, AZ 85282  
In AZ: (602) 438-0888  
1-800-535-7648

**Comprehensive Video Supply Corporation** recently unveiled enhanced multi-source versions of the popular Edit Master editing system. The new systems can be configured to control up to four source VTR's, which may be of mixed formats and manufacture, allowing for inter-format editing.

Like the previously available cuts-only version of Edit Master, the new systems provide 900-event memory, extensive list management and list cleaning functions, and auto assembly. All versions are driven by an IBM or compatible personal computer supplied by the user or available as an option from Comprehensive. The new systems also include a color-coded keyboard with an industry-standard layout.

Any Edit Master system, including cuts-only systems already installed at user facilities, can be upgraded to higher levels. Thus, a user may start with a cuts-only or A/B-roll system and easily expand to A/B/C/D-roll as necessary.

Contact: Comprehensive Video Supply Corporation  
148 Veterans Drive  
Northvale, NJ 07647  
(201) 767-7990



The TSG-100 test signal generator from Tektronix.

A new, low-cost test signal generator is available from Tektronix. The TSG-100 is a \$1,250 unit with eight-bit digital generation and eight commonly used test signals, including SMPTE color bars, convergence patterns, and multiburst.

Housed in a compact, rugged mechanical package with DC power operation, the TSG-100 is suitable for studio, maintenance bench, mobile unit, and field portable applications.

Contact: Warren Beals  
Tektronix, Inc.  
P.O. Box 500  
Beaverton, OR 97077  
(503) 620-9100

**Electro-Voice** has issued a new catalog featuring its complete line of broadcast and production microphones. The first catalog in more than twenty years that is aimed specifically at the broadcast market, the book contains selection and application sections as well as model information referenced by microphone type.

Contact: Electro-Voice  
600 Cecil Street  
Buchanan, MI 49107  
(616) 695-6831

**Commodore Business Machines, Inc.** presents its graphics-oriented Amiga 2000 personal computer featuring high-quality character generation, special effects, and 3-D animation. The unit, which comes complete with color monitor display, genlock, three megabytes of memory, and a hard drive, lists for less than \$5,000.

The Amiga can overlay video, graphics, animation, and sound with true multi-tasking capability using either AmigaDOS and MS-DOS environments and support from sophisticated graphics software. It is NTSC compatible and will support video genlocking. Add-ons include up to nine megabytes of memory, color keys, frame buffers, and composite video adapters.

A full range of graphics and video software as well as traditional business software is also available.

Contact: Commodore Business Machines, Inc.  
1200 Wilson Drive  
West Chester, PA 19380  
(215) 431-9100

**NEW VISIONS INC.**  
Distributors of Entertainment  
and Promotional Films  
P.O. BOX 599  
ASPEN, COLORADO  
81612  
303/925-2640

## AWARD-WINNING

half-hour sports specials available on a 2/4 barter split. Celebrities and sports commentators step into the sports arena and touch your viewing audience with the magic that makes America's love affair with sports so great! When you need entertainment for people of all ages, call Dabney Mann at New Visions, Inc. for the best in sports syndication.

Circle (25) on ACTION CARD

## FCC Upholds New York City LPTV Application

The Federal Communications Commission has agreed with the Mass Media Bureau that National Innovative Programming Network may apply for an LPTV station on channel 19 in New York City.

Poseidon Productions, Inc. had asked that National's application be denied. It alleged that National, which won the channel in the April 1985 LPTV lottery, did not have reasonable assurance of an antenna site and that its 1982 amended application contained contradictory information regarding the proposed HAAT of the transmitting antenna.

But the Commission agreed with the Bureau's earlier ruling that Poseidon had no grounds to raise the question regarding the antenna location, citing letters from Fordham University and sworn statements by National's consulting engineer and attorney verifying that Fordham had agreed to provide an antenna site for National on university property.





# Attention **LPTV's** *Christian Family Programming*

CALL TOLL FREE  
for more information  
**1-800 552-4546**

**BOX 216 WINDSOR RD. RED LION, PA. 17356**

Circle (30) on ACTION CARD

## *... at the FCC*

### NEW LPTV LICENSES

The following LPTV stations received licenses on the dates shown. Station call sign, location, and the name of the licensee are also given.

- K39BI Phoenix, AZ. Arizona Christian TV System, Inc., 10/3/88.
- K65DJ Redding, CA. Trinity Broadcasting Network, 9/19/88.
- K65CK Glenwood Springs, CO. Pikes Peak Broadcasting Company, 10/4/88.
- W07BP Ocala, FL. Charles Woods, 10/4/88.
- W24AT Sarasota, FL. Coast Broadcasting Group, Inc., 10/3/88.
- W22AH Columbus, GA. Georgia Regional Community TV, 10/4/88.
- K52BH Ames, IA. Trinity Engineering Company, Inc., 10/3/88.
- K15CN Salina, KS. Trinity Broadcasting Network, 10/4/88.
- K17BV Redwood Falls, MN. Redwood TV Improvement Corporation, 10/4/88.
- W39AI Youngstown, OH. Trinity Broadcasting Network, 10/3/88.
- K42BR Terrebonne/Bend, OR. Rodney S. Johnson, 10/3/88.
- W65BF Memphis, TN. Trinity Broadcasting Network, 10/4/88.
- K56DF Amarillo, TX. Spectrum Media, 10/3/88.
- K35BO Wichita Falls, TX. Sports 35, Ltd., 10/4/88.

### LPTV LICENSE RENEWALS

The following LPTV stations received license renewals on the dates shown. Station call sign, location, and the name of the licensee are also given.

- W69AX Perry, FL. Perry Channel 69 TV, Inc., 9/30/88.
- W43AG Hopkinsville, KY. Kentucky New Era, Inc., 9/16/88.
- W54AE Paducah, KY. David Lee Grimes, 9/7/88.
- W65AS Crowley, LA. Full Gospel Business Men's Fellowship International, 10/12/88.
- W10BC Springfield, MA. Harvard Broadcasting, Inc., 9/7/88.
- K56AU Columbia, MO. Trinity Broadcasting Network, 10/17/88.
- K02MU Elk City, OK. Elks City Communications, 9/9/88.
- K52AN Elk City, OK. Northfork TV Translator System, 9/22/88.

- K58CS Erick, OK. Northfork TV Translator System, 9/9/88.
- K62BQ Erick, OK. Northfork TV Translator System, 9/9/88.
- K53BE Guyton, OK. Christian Community TV, Inc., 9/9/88.
- K27AZ Lawton, OK. Trinity Broadcasting Network, 9/9/88.
- K18AM Ponca City, OK. American Broadcasting Systems, Inc. 9/9/88.
- K36AJ Strong City, OK. Northfork TV Translator System, 9/9/88.
- K69DH Woodward/Mooreland, OK. OKTV Translator System, Inc., 9/22/88.
- W09BL Williamsport, PA. Valley Music, Inc., 9/22/88.
- K47BP Booker/Darrouzett, TX. C. L. & O. Translator System, Inc., 10/24/88.
- K02GM Brady/Rochelle, TX. Central Texas Electronics, Inc., 9/16/88.
- K04GI Brady/Rochelle, TX. Central Texas Electronics, Inc., 9/16/88.
- K05EF Brady/Rochelle, TX. Central Texas Electronics, Inc., 9/16/88.
- K26AP Brownwood, TX. Trinity Broadcasting Network, 9/9/88.
- K28AK College Station, TX. Clear Channel Communications, Inc., 9/9/88.
- K29AD Corsicana, TX. Navarro College, 9/9/88.
- K41AK Fairfield, TX. Navarro College, 9/9/88.
- K47AP Greenville, TX. Bill R. Wright, 9/30/88.
- K05HU Houston, TX. Wodlinger Broadcasting of Texas, Inc., 9/9/88.
- K05IA Huntsville, TX. International Broadcasting Network, 9/9/88.
- K31AI Huntsville, TX. International Broadcasting Network, 9/9/88.
- K02MQ Kerrville, TX. International Broadcasting Network, 9/9/88.
- K05HR Livingston, TX. Polk County Broadcasting Company, 9/21/88.
- K66CA Livingston, TX. International Broadcasting Network, 9/9/88.
- K40AN Lubbock, TX. Lubbock Television Company, 9/9/88.
- K44AK Memphis/Lakeview, TX. Cruze Electronics, 9/9/88.
- K61CV Mullin, TX. Pompey Mountain Broadcasting Company, Inc., 9/9/88.
- K72BN Uvalde/Knipka, TX. Tom Winkle Radio and TV Service, 9/9/88.
- K79BP Uvalde/Knipka, TX. Tom Winkle Radio and TV Service, 9/9/88.
- K51BG Victoria, TX. D. W. Strahan, 9/9/88.
- K61BC West Half of Kimble County, TX. North Llano Television Corporation, 9/9/88.

- K63BC West Half of Kimble County, TX. North Llano Television Corporation, 9/9/88.
- K65BE West Half of Kimble County, TX. North Llano Television Corporation, 9/9/88.

### ASSIGNMENTS AND TRANSFERS

- K46BZ Fort Smith, AR. Voluntary assignment of permit granted from Family Media of Fort Smith to Pharis Broadcasting, Inc. on 9/6/88.
- K48CD Flagstaff, AZ. Voluntary assignment of permit granted from Carter Broadcasting Corporation to American Television Network, Inc. on 10/3/88.
- K26BF Goleta, CA. Voluntary assignment of permit granted from Guy S. Erway, Jr. to Goleta LPTV Corporation on 10/3/88.
- K19BN San Diego, CA. Voluntary assignment of permit granted from Carter Broadcasting Corporation to American Television Network, Inc. on 10/3/88.
- K38AT Twenty Nine Palms, CA. Assignment of license granted from Valley/Palms Communications, Inc. to American Television Network, Inc. on 10/3/88.
- K26BH Yucca Valley, CA. Assignment of license granted from Valley/Palms Communications, Inc. to American Television Network, Inc. on 10/3/88.
- W51AX Washington, DC. Voluntary assignment of permit granted from John W. Gainey, III to Local Television Associates, Inc. on 9/6/88.
- W49AI Inglis/Yankeetown, FL. Transfer of control granted from Robert Thomas as 80% shareholder to Citrus County Association for Retarded Children, Inc. on 10/3/88.
- W59AI Orlando, FL. Voluntary assignment of permit granted from American Christian Television System, Inc. to CFF Properties, Inc. on 10/17/88.
- W69BO Vero Beach, FL. Voluntary assignment of permit granted from Earl W. Cravens to Vero Beach Television, 10/4/88.
- K20BZ Sandpoint, ID. Voluntary assignment of permit granted from Statesman-Examiner, Inc. to KAYU Partners, Ltd. on 9/6/88.
- W43AS Pikeville, KY. Voluntary assignment of permit granted from Black Media Associates to Video Marketing Network, Inc. on 10/3/88.
- K42AU Pittsfield, MA. Voluntary assignment of permit granted from WKNE Corporation to E. H. Close on 10/3/88.
- W03AY Augusta, ME. Voluntary assignment of permit granted from Faith That Pleases God Church, Inc. to Faith That Pleases God Church Corporation on 10/14/88.
- W55BH Saco, ME. Voluntary assignment of permit granted from Porquoy Pas TV to Porquoy Pas TV, Inc. 10/4/88.
- K56CA Columbia, MO. Voluntary assignment of permit granted from St. Louis Metropolitan Baptist Association to Missouri Baptist College on 10/17/88.
- K21BM Grants, NM. Voluntary assignment of permit granted from Mountain TV Network, Inc. to Mountain States Broadcasting on 9/1/88.
- K08KK Paris, TX. Transfer of control granted from Webb-Johnson Paris LPTV, Inc. to James C. Hilliard on 9/20/88.
- K44CK Chelan, WA. Voluntary assignment of permit granted from Statesman-Examiner, Inc. to KAYU Partners, Ltd. on 9/6/88.
- K09UP Colville, WA. Assignment of license granted from Statesman-Examiner, Inc. to KAYU Partners, Ltd. on 9/6/88.
- K36BF Hoquiam, WA. Voluntary assignment of permit granted from United States Television Seattle Limited Partnership to USTV Washington, Inc. on 10/7/88.

### NEW LPTV CONSTRUCTION PERMITS

- The following parties received LPTV construction permits on the dates shown. Station call sign and location are also given.
- K62DI Harrison, AR. Mountain TV Network, Inc., 10/5/88.
- K69FM South Phoenix, AZ. Casey Telecommunications Corporation, 8/19/88.
- K69FO Blythe, CA. John F. Craven, Jr., 9/20/88.
- K16BU South Lake Tahoe, CA. Tahoe Daily Tribune, Inc., 6/14/88.
- K34CN Tahoe City, CA. Tahoe Daily Tribune, Inc., 6/14/88.

K49CJ Colorado Springs, CO. Echonet Corporation, 10/4/88.

W34AU St. Augustine, FL. Terrance Joaquin Gladden, 9/30/88.

K28BS Kaim, HI. Mountain TV Network, Inc., 10/4/88.

K69FI Denison, IA. Millard V. Oakley, 10/4/88.  
K12OA Pocatello, ID. Ellen M. Armstrong, 10/4/88.

K17CC Dodge City, KS. Russell Communications, 10/5/88.

K40CN Woodston, KS. Wireless Cable Broadcasting Company, 9/27/88.

K22CS Alexandria, LA. James E. Still, 9/27/88.  
W22AR Fall River, MA. Freedom WLNE-TV, Inc., 9/27/88.

K33CR Appleton, MN. Rural Western UHF TV Corporation, 10/4/88.

W08CQ Cleveland, MS. David Ellington, 9/27/88.  
K65ED Omaha, NE. Heidi A. Terrill, 9/20/88.

W36AT Atlantic City, NJ. Quali-Tech Telecommunications Group, Inc., 10/4/88.

K31CF Chama, NM. Mountain TV Network, Inc., 9/27/88.

K31CE Santa Rosa, NM. Mountain TV Network, Inc., 9/27/88.

K52CZ Las Vegas, NV. Women's LPTV Network, 9/27/88.

W57BE Rochester, NY. Evergreen Broadcasting Corporation, 10/4/88.

K57EM Coos Bay, OR. Localvision, 10/4/88.

W21AP Columbia, TN. Synergenesis Broadcasting, 10/5/88.

W66AZ Farragut, TN. Volunteer Realty Company of Knoxville, Inc., 9/27/88.

W23AO Morristown, TN. Full Gospel Business Men's Fellowship, International, 10/5/88.

K33CL Uvalde, TX. Mountain TV Network, Inc., 10/4/88.

W50AX Bristol, VA. Roy H. Park Broadcasting of Tri-Cities, Inc. 10/5/88.

W46BB Richmond, VA. American Christian Television System, 10/12/88.

K30CO Port Angeles, WA. Mountain TV Network, Inc., 9/27/88.

#### LPTV LOTTERY WINNERS

The following are tentative selectees of the LPTV/translator lottery held on August 4, 1988. If no petitions to deny the selectees are filed, and if they are otherwise qualified, they will be granted construction permits.

Ch. 32 Hot Springs, AR. Payne Broadcasting Company.

Ch. 23 Glendale, AZ. Clark County School District.

Ch. 19 Yuma, AZ. KUSK, Inc.

Ch. 48 Litchfield, CA. Owen Broadcasting Enterprises.

Ch. 60 Morro Bay, CA. Sierra Valley Communications.

Ch. 38 Pueblo, CO. Benson Ellis.

Ch. 5 Sarasota, FL. Juan Ramon Ortiz.

Ch. 48 Burlington, IA. Midamerica LPTV Associates.

Ch. 57 Burlington, IA. Local Communications.

Ch. 62 Dubuque, IA. Millard V. Oakley.

Ch. 59 Alexandria, LA. Spectrum Media.

Ch. 50 Lake Charles, LA. Randy Douglas.

Ch. 67 Springfield, MA. Bethany Assembly of God.

Ch. 44 Detroit, MI. Fairlane Assembly of God.

Ch. 51 Beatrice/Lucedale, MS. George County Times.

Ch. 42 Natchez, MS. Russell Communications.

Ch. 30 Whitefish, MT. Lawrence P. O'Shaughnessy.

Ch. 63 North Wilksboro, NC. Guilford Telecasters, Inc.

Ch. 41 Pahrump, NV. Town of Pahrump.

Ch. 45 South Kingston, RI. Phoenix Production and Broadcasting.

Ch. 23 Woonsocket, RI. Viking Communications.

Ch. 36 Goldendale, WA. Mountain TV Network, Inc.

The following are tentative selectees of the LPTV/translator lottery held on September 7, 1988. If no petitions to deny the selectees are filed, and if they are otherwise qualified, they will be granted construction permits.

Ch. 69 Pittsburgh, PA. Abacus Television.

Ch. 43 Reno, NV. Kidd Communications.

Ch. 61, Colorado Springs, CO. Front Range Educational Media Corporation.

Ch. 13 Hatchbend, FL. Manuel A. Cantu.

Ch. 10 Bailey's Corner, PA. Diversified Communications.

Ch. 11 Hartford, CT. National Black Media Coalition.

Ch. 17 Taos, NM. Mountain TV Network, Inc.

Ch. 22 Lewistown, MT. Mountain TV Network, Inc.

## Classifieds

### FOR SALE

**COMPLETE BLONDER-TONGUE STV SYSTEM.** Alonon Communications, Inc. Contact Bill Alonon at (419) 562-3830.

**BOGNER B8-UO ANTENNA** for Channel 39. One year old. 120 feet Andrew LDF-750 cable and connectors. Contact LeRoy Stevens, ACTS Network, Inc., P.O. Box 39, Phoenix, AZ, 85001, (602) 264-3939.

### POSITIONS WANTED

**RESOURCEFUL, HANDS-ON** general manager, programmer, producer seeking new LPTV challenge. Experience in start-up of community-oriented commercial organization. Wayne Sorge, (806) 795-6935.

### SERVICES OFFERED

**GM OF PROFITABLE LPTV**, with 5 years LPTV experience, available for consultation purposes. Please write to Ken Shapiro, c/o TV-65, 777 E. Wisconsin Ave., Milwaukee, WI 53202. Consultation only available on weekends.

### BUSINESS OPPORTUNITIES

...**WICHITA, KANSAS...** **POWERFUL VHF** seeks investors to build/operate new LPTV. Video International, Inc., (313) 295-0888. Broadcast engineering consultants, FCC engineering sections, amendments. LPTV turn-key systems, studio packages, mobile vans, editors, automated playback systems.

**USED TRANSMITTERS AND ANTENNAS (save thousands)**

**DEALERS FOR:**  
TTC, EMCEE, SCALA, BOGNER, LINDSAY & M/A COM MICROWAVE (one watt to 50 KW)

**Broadcasting Systems Inc.**

Turnkey LPTV Construction  
8341 East Evans Road, Suite 101  
Scottsdale, AZ 85250  
(602) 951-0266  
FAX (602) 951-9081  
Kenneth Casey  
(30 YEARS EXPERIENCE)

Ch. 20 Many, LA. Mountain TV Network, Inc.

Ch. 57 Shreveport, LA. American Christian Television System, Inc.

Ch. 47 Corpus Christi, TX. South Texas Educational Broadcasting Council.

Ch. 64 Victoria, TX. Residential Entertainment, Inc.

Ch. 54 Brookhaven, MS. Southwest Publishers, Inc.

Ch. 42 Houston, FL. Community Television.

Ch. 30 Santa Fe, NM. K. Sandoval Burke.

Ch. 45 Colorado Springs, CO. Barbara J. Ward and Horace Ward, Jr.

Ch. 35 Alliance, NE. Alliance Publishing Co., Inc.

Ch. 40 Laughlin, NV. Jerome F. and Diane R. Snyder.

Ch. 17 New York, NY. National Broadcasting Company, Inc.

**CLASSIFIED RATES:** All classified ads are payable in advance. When placing an ad, indicate the exact category you desire: *Help Wanted, Situations Wanted, Services Offered, Business Opportunities, Wanted to Buy, For Sale, Miscellaneous.* The publisher reserves the right to abbreviate, alter, or reject any copy.

Classified advertising is sold at the rate of 50¢/word. There is a \$15.00 minimum charge for each ad. Count each abbreviation, initial, single figure, or group of figures or letters as one word each. Symbols such as *mm, C.O.D., P.O., etc.* count as one word each. Telephone numbers with area codes, and ZIP codes, count as one word each.

Business Card ad rates are \$45.00 per insertion, \$35.00 each for six or more consecutive insertions. For Classified Display rates, call Scott Swartwout at (414) 781-0188.

Cancellations of or changes in on-going ads must be made 30 days prior to the month in which the cancellation or change is to take effect.

TO PLACE YOUR AD CALL (414) 781-0188

*John H. Battison & Associates*  
CONSULTING RADIO ENGINEERS

JOHN H. BATTISON, P.E.

890 CLUBVIEW BOULEVARD NORTH  
COLUMBUS, OHIO 43085  
614/888-3364

**CARPEL** VIDEO  
3/4" Video Tape  
All Lengths  
\$3.99 to \$9.99  
BROADCAST QUALITY

VIDEOTAPE WHOLESALERS

429 East Patrick Street  
Frederick, Maryland 21701

800-238-4300  
301-845-8888 in MD

FCC ON-LINE DATABASE

**dataworld®**

Allocation/Terrain Studies  
AM • FM • TV • LPTV • ITFS  
P.O. Box 30730  
Bethesda, MD 20814  
(301) 652-8822 (800) 368-5754

*White Manufacturing Company*

295 Harris Avenue  
Providence, RI 02909  
Phone 401-421-8810  
FAX 401-421-0331

RECOGNITION  
CONCEPTS  
SERVING THE  
BROADCASTING  
INDUSTRY

*Microphone Identification Clips*

**When  
it's time to  
move up  
from  
U-matic,  
move up  
to  
U-matic.**



Some video experts would have you believe that the only way to upgrade your video equipment is to throw it out and start over.

At Sony, we see it differently. And you will too when you see the new TYPE VII and TYPE IX series of U-matic® players and recorders.

Not only are they compatible with your existing U-matic equipment, they offer performance that

until now you could only get at twice the price.

For starters, you get SP technology on the TYPE IX models, which means superior picture quality on both originals and copies. You also get a new form of absolute address called Frame Code. As well as a computer interface which lets you preset players and recorders to start and stop at certain times.

More impressive, however, is the price. We've designed these U-matics to fit into your budget as easily as they fit into your facility.

To learn more about TYPE VII and IX please call 1-800-523-SONY.

With U-matic, moving up to a new standard in video could be as simple as opening a box and plugging it in.

**SONY®**

**Professional Video**

Sony Communications Products Company, 1600 Queen Anne Road, Teaneck, NJ 07666.  
© 1988 Sony Corporation of America. Sony and U-Matic are trademarks of Sony.

Circle (15) on ACTION CARD